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The Strategy of Concept Attainment*

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SSENTIALLY, this discussion is cond cerned with that part of mathematics teaching loosely classified under the heading "problem solving." That is, attention will be directed toward the area psychologists call the "cognitive domain," which "includes those objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills." The reference cited classifies such objectives under six major headings: knowledge, comprehension, application, analysis, synthesis, and evaluation. We shall not stop to analyze these headings, although they are, indeed, objectives each mathematics

* Logic in Elementary Mathematics, by Myron F. Rosskopf and Robert M. Exner, will be published early next year by McGraw-Hill. On a Fulbright Award, Dr. Rosskopf will spend 1958-59 at the Pedagogisk Institut, Oslo, Norway. He will lecture on "The Teaching of Mathematics in the United States."

Benjamin S. Bloom, editor, Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain (New York: Longmans, Green and Co., 1956), p. 7.

teacher desires to make a contribution to.

So, we are interested in the cognitive domain. By what teaching methods can we develop a student's ability in this area? A careful analysis, in the context of mathematics, of the "strategy of concept attainment" may indicate helpful methodology. This brings us face to face with the subject, but before we plunge into it, we ought to be sure what we mean by strategy, concept, concept formation, and concept attainment. Only then will it be meaningful to put them all together and talk about the whole subject, strategies of concept attainment.

A concept is "a way of grouping an array of objects or events in terms of those characteristics that distinguish this array from other objects or events in the universe." Consider, for example, the set of all natural numbers:

 $\{1,2,3,4\ldots,n,n+1,\ldots\}$;

² Jerome S. Bruner, Jacqueline J. Goodnow, and George A. Austin, *A Study of Thinking* (New York: John Wiley and Sons, 1956), p. 275.

Certain subsets of this set are discriminable. There is the set of even natural numbers,

 $\{2,4,6,8,\ldots,2n,\ldots\};$

the set of odd natural numbers,

 $\{1,3,5,7,\ldots,2n+1,\ldots\};$

the set of prime (natural) numbers,

{2,3,5,7,11,13, . . . }.

When a student can distinguish between prime numbers and numbers that are not prime, then he has a concept of prime numbers. He has grouped the array of objects, the natural numbers, so that he can tell the difference between a prime number and a natural number that is not prime. He has used the characteristics that distinguish between prime numbers and other members of the set of natural numbers. Really, the student has formed two categories of natural numbers, those that are prime and those that are not prime.

But we recognize more in a concept than just the forming of categories according to some discriminating characteristic or characteristics. Part of the concept of prime numbers would be a realization that their number is infinite, that no one has devised a formula for prime numbers, that there is just one even prime, and so on. In short, it appears that we are willing to accept as part of a concept the inferences drawn from the category we have been able to devise. A working definition of a concept might be "the network of inferences that are or may be set into play by an act of categorization."3

Very little will be said here about concept formation because so little is known about it. To return to the set of natural numbers as an example, one would say a child was forming a concept

3 Ibid., p. 244.

when he wondered, "Are there some (natural) numbers that are different from others?" The difficulty inherent in investigating such a question is obvious. The answer lies so far back in childhood that an adult cannot even recall formulating the question. He recalls only the fact of concept attainment—certain numbers are different from others; there are categories into which they can be put; and there are good tests for determining which number to put in this category or that.

There is much talk currently about a concept of a set. The formation of this concept is only a dim memory for adults. It lies in the neighborhood of the realization that objects might be considered to have some common property, however arbitrary or abstract that property may be.

CATEGORIZING OR CONCEPTUALIZING

Only a very small child reacts to numbers as individual objects. Moreover, the reaction is quite specific. There are two eyes, two ears, two shoes. It is a proud day for parents when their child attains a concept of twoness. Behavioral evidence comes when the child holds up or points to a set of two objects and says, "Two." But it is only the attainment of the concept the parents observe; formation of it is hidden in the sub-verbal realm. This is the difficulty with research on concept formation. How can this subverbal realm be brought to the verbal stage or, at the very least, to some external, observable behavior?

The child learns to call any set that has two objects in it by the name "two." In a way, he forms an equivalence class of all sets that can be put into one-to-one correspondence with some fundamental set of two members. Conceptualization,

then, is really the process of forming these equivalence classes of things that look different but have some property in common.

Notice that the learning in the example started with objects, the concrete or functional if you please, and proceeded to the abstract or formal categorization. Such a pattern seems typical of learning in mathematics. Mathematics has strong empirical roots which should not be forgotten or neglected in our teaching. In short, it is possible to be too abstract too early in a child's mathematical career.

Take as an example the concept of a rational number. This starts very early in the home experiences of the preschool child. One-half and one-fourth are known for names of parts of things: one-half of an apple or an orange or a bottle of soda or a candy bar. During the first and second grades the concept is expanded to include other objects and the written symbols for one-half and one-fourth: 1/2 and 1/4; 1/3 is added to the list. The concept is still on the level of these symbols being names of parts of things. There seems little evidence that a child thinks of 1/2,1/4,1/3 as exemplars of a new sort of number. The work in elementary school arithmetic does call the fractions "numbers," of course, but still the concept, the way of categorizing these numbers, of telling how they differ from whole numbers, is in terms of a way of expressing them; to wit, a numerator, a horizontal line, and a denominator. Not until quite late does the teaching reach the stage of giving a new name, rational numbers, to the class of numbers that can be expressed as the quotient of two integers, the denominator not zero. Now the concept has become formal, and it will be even more so when the student recognizes rational

numbers as ordered pairs of integers in which the second member is not zero.

Notice that at each stage there are cues that a student looks for: parts of things; a numerator, horizontal line, and denominator; a quotient of two integers; an ordered pair of integers. These cues help a student put a number he encounters into its proper category, to align it with the concept he has formed. Notice, also, that the example involves the invention of ways of grouping predictive characteristics. The test of the invention is its usefulness. Does it effectively categorize numbers? The answer is "Yes," until a student thinks to ask, "Are there other numbers?"

Categorizing is based upon defining attributes. By grouping together things that satisfy the defining attributes or characteristics of a class, an individual (a) reduces the complexity of his environment; (b) identifies the objects in the world; (c) reduces the necessity of constant learning; (d) gives direction to activity; (e) orders and relates classes.4

Are there any implications here for problem solving in algebra? If a student does not use cues to classify problems he meets, then he must treat each problem as an individual. The cognitive strain in such a procedure is enormous. The student must, perforce, for purposes of economy of effort look for distinguishing characteristics or discriminable attributes of problems in order to reduce the strain. That is, he must use cues, put the problem in a pre-decided-upon category, and try a method that has worked in the past to solve problems in that category.

In short, it was not so bad to have taught students to look for cues in problem solving, but it was bad to have led them to believe that this was the way to

⁴ Bruner and others, op. cit., p. 12.

solve all probems. It was also bad to make problems in textbooks all of the same type, so that a student did not have to exercise discrimination in looking for cues more than once. It would seem that a categorization of a problem as distance-rate-time, mixture, number, work, or geometric is the first step toward its solution. It is only after the problem has been put in a certain category that one can go ahead with plans for solving it.

Of course the first plan may fail. If it does, we have to devise variations on the first plan. Perhaps we failed to discriminate carefully enough when we categorized the problem. Consider the following problem.

following problem:

From a two-digit number, N, subtract the number whose digits are those of N interchanged. If the difference is a positive perfect cube, how many permissible values of N are there?

A first classification of this problem is that it belongs in the category of number problems. All right; we have standard methods for solving such problems. Let us apply them:

$$N = \text{1ot} + u,$$

 $(\text{1ot} + u) - (\text{1ou} + t) = 9(t - u) = a$ positive perfect cube.

But we are stopped now. Our standard methods fail; and we must realize that they fail and search for some new method. We must shift our plans, and this requires strategy.

STRATEGY

A strategy is a carefully planned calculation and coordination of the specific ends and means necessary to achieve a goal. That is, "a strategy refers to a pattern of decisions in the acquisition, retention, and utilization of information that serves to meet certain objectives, i.e., to insure certain forms of outcome and to insure against certain others. Among the objectives of a strategy are the following:

- (a) To insure that the concept will be attained after the minimum number of encounters with relevant instances.
- (b) To insure that a concept will be attained with certainty, regardless of the number of instances one must test en route to attainment.
- (c) To minimize the amount of strain on inference and memory capacity while at the same time insuring that a concept will be attained.
- (d) To minimize the number of wrong categorizations prior to attaining the concept."5

The foregoing usage is analogous to but slightly different from the meaning given to strategy in the theory of games. In the latter a strategy is a complete set of decisions; no change is allowed in any one game once a strategy, a set of decisions, has been decided upon. In the case of concept formation too a strategy is a set of decisions, but these decisions can change as the individual forms a new definition of his goals or decides upon a different categorization of the problem or becomes subject to pressures. However, experiment indicates that many individuals have a tendency to decide beforehand upon a strategy that has worked well in other problem situations and to continue to use the strategy in spite of repeated failure.6

There are several immediate implications for teaching mathematics. First, there is the matter of the definition of the task to be done as the student sees it. Does he see the task as part of a bigger learning situation? Or does he see the job

⁵ Ibid., p. 54.

⁶ Ibid., p. 58.

as one of getting an answer, a number? Does he see the job as stringing together a sequence of statements to call a proof? Or does he see it as achievement of a structure held together with the glue of logic? Involved here is a question of motivation as well as one of both textbook and teacher being crystal clear in directions.

A second implication for teaching is related to the matter of categorizing a problem, deciding upon a strategy, and clinging to the strategy in spite of its ineffectiveness.

Let us return to the problem presented earlier. It was used on a mid-semester examination in a course whose title is Teaching of Algebra and was intended to underscore some features of problem solving that had been discussed in class. As the writer read the solutions of this particular problem on the test papers, he observed many types of strategies being used in efforts to solve it. Almost everyone categorized the problem as a number problem, and immediately wrote an expression for a two-digit number. So far, so good. Those whose bent was to write equations—a strategy that in their experience worked well to solve number problems—were frustrated in their efforts. Their papers showed numerous scribblings, tag ends of ideas that might work. As the time pressure increased, the scribblings indicated frantic efforts to achieve an equation, or a set of equations, that would be solved by tried-and-true methods.

Then there were those who realized that a shift in strategy was necessary. Their papers showed fewer scribblings, fewer equations or efforts aimed at achieving equations, but they were caught in their conception of the definition of a mathematical solution. Clearly, their work indicated that they rejected

as mathematical a solution arrived at by guess or introspection or intuition. If the solution could not be arrived at by manipulating an equation, then (in this case, at least) it was not acceptable. We see here how important the mind-set is; a definition of an acceptable problem solution that is too restrictive can interfere with achieving a solution of the problem.

The successful group not only realized a necessity for a shift in strategy but also had a broader conception of what constitutes acceptable methods of solution of a problem. A variety of strategies were used by these people. Some of them were very elegant; others were straightforward testing of cases.

What observations can be made? One is that we must be careful to teach so that our students will acquire a broad conception of methods that are mathematical. Their definitions of solution cannot be narrow. A second observation is that we should like our students to be flexible in their strategies—willing to adopt another plan if the first one fails or does not appear promising. If the pressure is great, we want them to gamble on achieving a solution.

EXAMPLES OF STRATEGIES

"Virtually all the effective strategies for attaining concepts depend upon the use of some sort of initial focus." Suppose we write the following equalities:

$$6 = 3 + 3
8 = 5 + 3
10 = 7 + 3
12 = 7 + 5$$

$$14 = 11 + 3
16 = 13 + 3
18 = 13 + 5
20 = 17 + 3$$

What do you see initially? Is it the even numbers or the odd prime numbers? Can you state a conjecture, a tentative conclusion? Does it look as if an even number can be expressed as the sum of two odd primes? But wait a moment; how

⁷ Bruner and others, op. cit., p. 63.

about 4 or 2? Then modify your conjecture:

An even number greater than 4 can be expressed as the sum of two odd primes.

This is Goldbach's Conjecture—and still is open to proof or disproof. Do you see the role that your initial focus played in arriving at this conjecture? If so, then the illustration has achieved its purpose of illuminating the quotation with which the section begins.

After the initial focus with respect to a problem is clear to a student, he faces the difficulty of deciding upon procedures for finding out something about the problem, even its solution. In the psychological research study that is the principal basis for this discussion, four "ideal" strategies are described: simultaneous scanning, successive scanning, conservative focusing, and focus gambling. Let us illustrate each of these by appealing to an "ideal" student and a mathematical problem. A problem from geometry will serve:

Find, on a straight line, a point such that the sum of its distances from two given points is the least possible. Distinguish two cases, one in which the two points are on the same side of the straight line and the other in which they are on the opposite sides.

Our ideal student will understand the problem and be able to draw two pictures to illustrate the two cases. Now he must make a choice of strategy.

Simultaneous scanning. The simultaneous scanner forms many hypotheses possible to follow to a solution—use congruent triangles, perpendicular lines, auxiliary lines, measurement, previously proved theorem concerning isosceles triangles, axioms—and keeps all of these hypotheses in mind. The strain on memory is great. Initially he chooses one of these

paths and examines it to see if it is promising and to see which of the other hypotheses it eliminates. He has to keep all the hypotheses in mind; he has to deduce which are eliminated; and as he goes to test a remaining hypothesis, he must remember which hypotheses have been eliminated by his former testing.

The advantage of simultaneous scanning hinges on the student's ability to deduce all the information with respect to which hypotheses should be discarded from the testing of an initial hypothesis. Then he can proceed with a maximum amount of information to test a remaining hypothesis. However, the memory strain and a time factor usually prevent him from obtaining maximum information. Moreover, he has no control over the risk involved in making a bad deduction. He cannot himself either increase or decrease the risk. There is little to recommend this strategy.

Successive scanning. Mathematics teachers often use this strategy, particularly in geometry when working with slow students. Essentially, the strategy consists of testing a single hypothesis at a time. Can congruent triangles be used? No, for no information concerning minimum distances can be obtained from congruent triangles. Can perpendicular lines be used? Some information concerning minimum distances can be obtained from perpendicular lines, for the shortest distance from a point to a line is measured along the perpendicular. But then we would have two shortest distances to two (in general) distinct points on the given straight line. The hypothesis must be discarded. And so on, until each hypothesis has been tested, independently of the others, and a correct hypothesis found.

The gain in use of successive scanning is in two areas, the lightening of memory

⁸ Ibid., pp. 83-90.

load and the relief from the necessity for many inferences. Another advantage is that each hypothesis can be subjected to direct test. Two disadvantages are that some of the hypotheses may be redundant, and that there is no control over risk. A student cannot take greater gambles or lesser gambles. Of course sufficent time, in a way unlimited time, must be available to a student so that he can feel secure in using the rather leisurely strategy of successive scanning.

Conservative focusing. A problem solver in mathematics who uses conservative focusing as a strategy first of all studies the problem to see if there is one key idea. If there is, this is seized upon and all hypotheses are tested against it. In our geometry problem there is such a key idea. It is that the "sum of its (the point to be found) distances from two given points is the least possible." Now what do we know about least distances? Two things: (a) the shortest distance between a point and a line is measured along the perpendicular and (b) the shortest distance between two points is a straight line.

The latter fact solves immediately the case of the problem in which the two given points are on opposite sides of the given straight line. The question is, Can we use the same fact to solve the other case, in which the points are on the same side of the straight line? Here, a problem solver would see which of his hypotheses, the geometrical methods that he has categorized at this stage, involve somehow the idea of the axiom he is using as a focus. One by one he adds parts of these hypotheses to the shortest distance between two points fact and tests the result. The "conservative" comes into the description of this strategy just at this point. Only one feature of a hypothesis is added at a time and tested.

Clearly, a great deal of information is obtained by this strategy and redundances are avoided. The risk of getting no information is under control. In fact one always gets some useful information from a test. The only real disadvantage is that material which is not arranged in orderly fashion might necessitate a long search for what the problem solver needs. Hence part of the success with which he uses conservative focusing will depend upon orderly arrangement of his mathematical knowledge.

Focus gambling. A problem solver who uses this strategy begins in the same way as the one who uses conservative focusing. But instead of using one feature of a hypothesis at a time and adding it to his focus, he gambles on using two or more. The strategy is not quite an allor-nothing procedure, but it is very close to it in case the omnibus hypothesis fails to solve the problem. The only way in which the problem solver can gain information from such a negative instance is to shift strategies and revert to successive scanning. However, the gamble may pay off; the hypothesis being tested may, indeed, solve the problem. Then there is much gain; the number of trials has been reduced to a minimum; much time has been saved.

SUMMARY

In order to conserve energy and relieve cognitive strain, human beings tend to deal with classes of things rather than with individuals. In forming these classes or categories a person looks for cues or characteristics that serve to distinguish things eligible for the category from those which are not eligible. These categories are inventions, like the set of positive even numbers or the set of integers exactly divisible by 3 or the set of prime numbers.

To solve a mathematical problem, then, we categorize it by looking for features that we have learned are characteristic of problems of a certain type. Then we test this categorization by means of certain hypotheses, methods of solution that we have associated with this category of problems. A decision on these hypotheses serves to validate our categorization. "The sequence of decisions made by a person en route to attaining a concept . . . may be regarded as a strategy embodying certain objectives. These objectives may be various in kind, but in general one may distinguish three kinds of objectives: (a) to maximize the information gained from each decision and test of an instance; (b) to keep the cognitive strain involved in the task within manageable or appropriate limits and certainly within the limits imposed by one's cognitive capacity; and (c) to regulate the risk of failing to attain the concept within a specifiable time or energy limit. . . . "9

We have seen there are two strategies, successive scanning and conservative focusing, that have application in mathematical problem solving when time is not of the essence. If a student has leisure; that is, time to test each hypothesis individually, then he can use successive scanning as a strategy. By making a preliminary analysis of the problem and choosing a hypothesis as a focus he can do his testing more efficiently. If, however, time harasses the student or there is danger of losing the payoff—which might be a passing grade on a test-then he should switch to focus gambling as a strategy. The information obtained may be all or none, but time, and the payoff, will be saved in case the strategy results in success.

One last point is that the strategy used by a student does not have to be conscious, nor does he have to be able to verbalize the strategy. What seems most important is that teachers be cognizant of the various strategies psychologists have found used in concept attainment. Thus equipped they can direct their teaching and their selections of problems toward making students better and more efficient problem solvers.

⁹ Bruner and others, op. cit., p. 234.

What Education Has to Learn from Psychology*

VI. Emotion and Learning

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DUCATION seems to be permeated by issues about which there are intense differences of opinion. One of these issues is whether education is helped or hindered by the presence of emotion in the learning process.

On the one hand there is the point of view that emotion is a disturbing factor in learning; that education proceeds best in a state of tranquillity and avoidance of excitement or stress. The educational ideal is a retreat from the heat and passions of the world to a place where contemplation and meditation can permit learning to proceed without the distortions of strong emotion. Education can best take place in the emotionally sterile atmosphere of the library, the laboratory, or the classroom. In the Middle Ages practically all learning and scholarship were concentrated in monasteries far removed from the strife of the world where leisure, calmness, and security prevailed.

This is the sixth article in a series by Professor Symonds on this subject. The first (Motivarian) appeared in the February Teachers College Record; the second (Re-(Punishmann) Conege Record; the second third (Punishment) in April 1956; the fourth (Whole versus Part Learning) in March 1957; and the forth and the fifth (Learning Is Reacting) in November 1957.

The harmful effects of emotion on learning are often pointed out. Interference with school progress is found in the emotionally disturbed child. His emotions prevent him from giving attention to his learning tasks and throw him into turmoil and confusion. A state of anxiety, rivalry, or anger can interfere with successful school achievement. Mc-Keachie has said, "Anxiety is a major factor in the college student's classroom

performance."1

But on the other hand there is the point of view that learning is in essence a tremendously exciting process; that any genuine learning must not be solely a sterile intellectual exercise, but should be a complete experience-which of course includes the emotions. Learning involves the excitement and anticipation of starting something new, the struggles, hopes, and doubts that accompany the process, the final feeling of triumph at the successful completion of one's task or the feeling of gloom and discouragement that accompanies failure. Even the simplest act of learning, it is claimed, involves all of the steps that constitute

1 W. J. McKeachie, "Anxiety in the College Classroom," Journal of Educational Research, 45:153-60, 1951.

a literary production. There are the introduction, rising action, the climax followed by falling action, and a conclusion. A little child learning to put a button through a buttonhole goes through these stages. He accepts the challenge of the problem, struggles with it, and strives for success while facing the possibility of failure. Finally there is the feeling of triumph—I have done it! The schoolboy goes through these same emotional stages in solving a geometry original, and so undoubtedly did Einstein in deriving his famous formula connecting mass, energy, and motion.

So it is claimed that genuine learning must be accompanied by emotion and sometimes *strong* emotion. There is curiosity and the passion to know, there is anxiety and doubt, there is stress and struggle, perhaps there is discouragement and despair, and finally there is the thrill and excitement of success.

Which of these two points of view is correct? What can we learn from psychology that will help to resolve this dilemma?

Although psychologists have recognized this alternative for a long time, it is only within recent years that psychology has provided definitive information on this issue. Meumann stated almost a half century ago that unpleasantness has a deleterious effect on memory and that all emotions impair memory if they exceed a moderate degree.2 He added that it is important for children to believe that they are able to do the work assigned.3 But Meumann based these remarks on his general observations and not on controlled experiment. Pyle, another early educational psychologist, wrote, "Any intense emotion of what-

3 Meumann, op. cit., p. 248.

ever kind is unfavorable to learning," but Pyle did not produce experimental evidence either.

Thorndike likewise recognized that emotion has an effect on learning, but he candidly admitted that the conflict between different theories "awaits experimental decision." From his informal observations he notes:

There is a conflict of theories and of practices with regard to the value of emotional fervor in learning. In the case of intellectual functions, the balance of opinion is that, apart from the eager but quiet zest for the work itself and for success in it, all emotional excitement is disturbingthat not only violent love, grief, humiliation and disgust, but also moderate fear of onlookers, exultation at success, and anger at competitors or at oneself, are to some extent wastes of energy and preventives of improvement. In the case of moral functions, such as learning to work energetically, or to tell the truth, or to be just to pupils or employers, the balance of opinion is rather toward the view that appropriate emotional fervor provides a reinforcement. . . . In the case of improvement in skill, the balance tends again toward freedom from all the crude emotional states, and even from all the finer excitements, save the intrinsic satisfyingness of success and the firm repudiation of errors which can hardly be called exciting.

Those who achieve most and advance most rapidly, whether in mathematics, science, music, painting, self-control or devotion, are, on the average, characterized by less inner turbulence at their work than those of low performance and slow progress.⁵

Since these early writers expressed their beliefs, psychologists have put many of these issues to experimental test. What are some of the results from

⁴ H. E. Pyle, The Psychology of Learning (Baltimore, Warwick and York, 1921), p. 73.
⁵ E. L. Thorndike, The Psychology of Learning, being Vol. II of Educational Psychology (New York, Bureau of Publications, Teachers College, Columbia University, 1913), pp. 226, 227, 228.

² Ernst Meumann, The Psychology of Learning (New York, D. Appleton and Company, 1913), p. 281.

current experimental studies of the influence of emotion on learning?

Actually an experimental study made by Yerkes and Dodson in 1907 reports one of the most important principles of the effect of anxiety on learning and should have been available to Thorndike and Pyle, but it appeared in a medical journal with which psychologists in general were not familiar.6 Perhaps one obstacle to Yerkes' and Dodson's finding becoming more immediately known was its cryptic phrasing: "As the difficultness of discrimination is increased, the strength of that (punitive) stimulus which is most favorable to habit-formation approaches the threshold." Interpreted, this means that mild degrees of punishment facilitate the performance of an easy task, whereas excessive amounts disrupt the solution of more difficult problems. (It should be remembered that Yerkes was the first to use punishment as a stimulus in animal experimentation.7) This finding also is not wholly satisfactory because it combines two variables the strength of the punishment (and the anxiety that the punishment evokes) and the difficulty of the task. These two sets of influences were separated in later studies.

SOME DEFINITIONS

A few definitions are in order here, so that the reader will have a clear understanding of the terms used, and a theoretical orientation of the concepts which underlie contemporary research in this

The most basic concept is frustration, which may be defined as interference

⁶ R. M. Yerkes and J. D. Dodson, "The Relative Strength of Stimulus to Rapidity of Habit Formation," Journal of Comparative Neurology and Parallel Parall ogy and Psychology, 10:459, 1908.
7 R.M. Yerkes, The Dancing Mouse (New. York The Property 1907).

York, The Macmillan Company, 1907).

with the satisfaction of some need. The word thwarting is a synonym for frustration. Frustration may result from deprivation. One important type of frustration is failure, which means that one has not succeeded in reaching some goal that he has set for himself. The goal or aspiration in this instance is the need that falls short of being satisfied.

Another form of distress in addition to frustration, or failure to achieve the satisfaction of some need or to achieve some goal, is harm or danger that may strike or threaten from without. Punishment, defined as something that hurts or causes pain, inflicted by one person on another, is a prime example of harm or the threat of harm. One readily recognizes that parents and teachers frequently use frustration or the threat of frustration as well as the direct infliction of pain as a punishment.

Anxiety is the emotional reaction that is aroused by some anticipated frustration or punishment. Anxiety is a most uncomfortable state and something that an individual avoids.

Continuous frustration or continuous threat of frustration or punishment gives rise to a state of tension. Under tension the unfulfilled needs induce an uncomfortable state of suspension, and muscular tension, apparent in posture, results from preliminary but incompleted attempts at adjustment in order to satisfy the aroused need. Tension always accompanies anxiety.

One other term, stress, has come into psychological usage in recent years. Stress refers to a condition, situation, or stimulus that arouses anxiety and produces tension.

EXPERIMENTAL FINDINGS

An important experimental finding with regard to emotion, especially anxiety, is that it acts as an energizer. One of the first to demonstrate this was Mc-Kinney, who had his subjects attempt tasks under timed conditions such that at the end of each minute an automatic clock would buzz. To be sure, this did not arouse profound emotion, but it was sufficient to cause his subjects to speed up. McKinney comments, "As long as the emotion is just a mild but persistent stimulus, it may act as a director or energizing force for ideational activity."8 McKinney's results did not command much attention, inasmuch as he added, "As soon as an emotion becomes so strong that impulsive behavior is unavoidable, it retards rather than directs activity." But the energizing influence of emotion has been demonstrated many times in subsequent experimental work and is of great significance. Franz Alexander has said that the struggle against frustrating conditions is an essential part of life.9 In fact, mild anxiety is one of the prime human motivations, and a state of mild anxiety and frustration is essential for all effective learning. It was Neal Miller who said, "Completely self-satisfied people are poor learners."10 A person learns only when he has an unsatisfied need that can be met only by learning, and an unsatisfied need is accompanied by a modicum of anxiety.

Anxiety, then, can be called a motivating influence if it is present in mild form. This raises the question of the place of "negative incentives" to learning. Some teachers are great believers in the negative incentive—the do-this-or-

⁸ Fred McKinney, "Emotional Factors in Learning," *Journal of General Psychology*, 9: 101-16, 1933.

⁹ Franz Alexander, "A World Without Psychic Frustration," American Journal of Sociology, 49:465-69, 1944.

10 N.E. Miller and John Dollard, Social Learning and Imitation (New Haven, Yale University Press, 1941), p. 21. else approach. Forcing a child to learn by threat of punishment is a negative approach. It makes learning an evil, and the choice of learning instead of punishment the lesser of two evils. But learning should be a positive thing, a reaching out for that which is desired rather than a retreat into the frying pan so as to avoid the fire.

A little child will be fascinated by what alarms him slightly—the red fire engine, the wild animal, the ghost story -and will want to experience it over and over again in play so that he can master the anxiety. Valentine claimed that children will "play out fears," even to the extent of screams and tears.11 Risk-taking accompanies all great endeavors. Every game, every contest involves risk because the outcome is not known until the final whistle blows. Climbing a mountain, playing a game of chess, betting on a horse involve uncertainty, taking risks, tension, and anxiety. A puzzle involves a person in uncertainty, doubts, and struggle until the key to the puzzle is found. Children find pleasure in the dangerous situation-riding on the roller coaster, setting off fire crackers, skating on thin ice, walking on a narrow bridge over a gorge-providing the danger is surmountable and not disastrous.

One may well ask whether a teacher should create frustrations or arouse anxiety. The answer is that real learning situations hold sufficient frustration and anxiety—it should not be necessary to create them artificially and extraneously. Frustration should be surmountable by learning; anxiety should be reducible by learning. If the problem cannot be solved, then the anxiety may persist or

¹¹ C. W. Valentine, "The Innate Basis of Fear," *Journal of Genetic Psychology*, 37:394-419, 1930.

it may have to be reduced by some subterfuge or defense mechanism such as rationalization.

Berlyne, a British psychologist, has pointed out that we respond to the strange and unfamiliar with anxiety which we call curiosity, and that there is always an element of anxiety in curiosity.12 According to this psychologist an organism will learn to respond to a curiosity-arousing stimulus with activity which will increase stimulation. A child tends to approach, examine, and explore that with which he is not familiar. That is, a child has an urge to poke the dormant lizard, or to take a watch apart to see what makes it go. But as the curiosity-arousing stimulus continues to affect an organism's receptors, curiosity and exploration will diminish because familiarity discourages exploration. Curiosity is recognized by teachers as an important condition for learning, and anxiety is the dynamic mainspring inherent in curiosity.

Curiosity can turn from approach to terror and withdrawal if the stimulus becomes too intense and if the situation becomes too threatening with the possibility that it may become unmanageable. During a walking trip in the Cotswolds in England many years ago, my wife and I found ourselves face to face with thirty or forty piglets in a farmyard. We stopped and the little pigs advanced toward us cautiously, with curiosity. I must have made a slight movement, because in an instant every pig turned and fled.

The dividing line between the anxiety present in curiosity which encourages approach and the anxiety which repels and gives rise to retreat and panic is thin,

and one may turn into the other with dramatic suddenness. What was a favorable condition for learning may in a twinkling be lost. If the intensity of stimulation of the unfamiliar object increases-a dog's loud bark, the sudden movement of a mechanical toy-the child's curiosity is turned into panie. This same outcome can be produced if other elements of the situation are unpleasant and anxiety-arousing-a teacher's sharp scolding, nagging, insistence on caution or restraint, failure or humiliation. Curiosity is normal with young children, but somehow our schools manage to extinguish this spark. Teachers should become aware of what they do that transforms curiosity and exploratory behavior into hands-behind-theback, do-not-touch behavior, and should use every caution to prevent the precious condition of curiosity from being destroyed by anxiety that at the moment may be overwhelming.

There is disagreement in the results of studies over the years of the influence of emotion on learning. Some studies have demonstrated that emotion actually improves performance. Taylor found that anxious persons learn a conditioned eyelid response more rapidly than unanxious persons, with high anxiety were more successful in rote learning.

But most of the studies demonstrate, agreeing with Yerkes' original report, that anxiety has a detrimental influence on learning. Lefford showed that it interferes with syllogistic reasoning. Tay-

Determinants of Exploratory Behavior," British Journal of Psychology, 41:68-80, 1950.

¹³ J. A. Taylor, "The Relationship of Anxiety to the Conditioned Eyelid Response," Journal of Experimental Psychology, 41:81-92, 1951.
14 E. L. Gaier, "Selected Personality Varia-

of Experimental Psychology, 41.

14 E. L. Gaier, "Selected Personality Variables and the Learning Process," Psychological Monographs, 66:17, Whole No. 349, 1952.

15 A. Lefford, "The Influence of Emotional Control of Con

Subject Matter on Logical Reasoning," Journal of General Psychology, 34:127-51, 1946.

lor and Spence showed that high anxiety resulted in lower performance on serial learning.16 Beam demonstrated that serial learning is impaired by the anxiety that is aroused by stress in a real life situation.17 Gaier, in the study already referred to, showed that high anxiety was negatively correlated with tasks involving analysis of familiar materials, with comparison of familiar with unfamiliar materials, with critical evaluation of new materials, with treatment of concepts or problems dissimilar to those previously studied, and with problems requiring new modes of attack.18 Ausubel, Schiff, and Goldman also showed that high anxiety subjects are less successful in problem solving.19 Taylor and Chapman found that anxiety interfered with pairedassociate learning.20

Can these discrepant results be reconciled? An analysis and comparison of the learning tasks in these several studies reveal that those tasks that show a higher performance under stress are relatively simple—eyelid conditioning, rote memory—whereas the task on which anxious subjects do less well are more complicated and difficult. The distinguishing factor seems to be "response competition." If responses do not have to compete with other responses, apparently

¹⁶ J. A. Taylor and K. W. Spence, "The Relationship of Anxiety Level to Performance in Serial Learning," *Journal of Experimental Psychology*, 44:61-64, 1952.

chology, 44:61-64, 1952.

17 J.C. Beam, "Serial Learning and Conditioning Under Real Life Stress," Journal of Abnormal and Social Psychology, 51:543-51,

18 Gaier, op. cit.

19 D.P. Ausubel, H.M. Schiff, and Martin Goldman, "Qualitative Aspects in the Learning Process Associated with Anxiety," *Journal of Abnormal and Social Psychology*, 48:537-47, 1953.

²⁰ J. A. Taylor and J. P. Chapman, "Paired-Associate Learning as Related to Anxiety," *American Journal of Psychology*, 68:671, 1955.

subjects are aided by the energizing effect of emotion; but when there are response competition, conflict of responses, and choice, then anxiety interferes with learning. This is particularly clear in those situations where an avoidance response (which almost of necessity assumes the presence of anxiety) has to compete with responses appropriate to the task.21 The more complicated and difficult the problem, the more will anxiety interfere with performance. Gaier found, for instance, that rigidity (which is a product of anxiety) correlated most highly negative (-.71) with the solution of problems requiring new modes of attack.

One can infer from this that conditions within a classroom that induce mild anxiety will have the least negative effect or even a positive effect on rote learning, but these conditions will interfere increasingly with problem solving, reflective thinking, and creativeness. If we want to teach pupils to think, then it is essential that anxiety be eliminated from the learning situation.

How does anxiety interfere with learning? On a simple level the very energizing influence of anxiety causes difficulty. Because speed of reaction is increased when choices have to be made, errors occur, as Montague has clearly demonstrated.²² This is in part due to less adequate discrimination when a person is under stress and anxiety is aroused. As Hilgard, Jones and Kaplan demonstrated,²³ the learner becomes confused when a choice and decision have to be

²¹ John Dollard and N.E. Miller, Personality and Psychotherapy (New York, McGraw-Hill Publishing Company, 1950), p. 360.

Publishing Company, 1950), p. 360.

²² E. K. Montague, "The Role of Anxiety in Serial Rote Learning," Journal of Experimental Psychology, 45:91-96, 1953.

²³ E. R. Hilgard, L. V. Jones, and S. J. Kaplan, "Conditioned Discrimination as Related to

made. Anxiety, as is well known, tends to deflect attention from the task at hand to the anxiety-provoking stimulus which is an important factor in the loss of discrimination.24 If a child is disturbed and anxious because of quarrels and threats at home, rivalry with a classmate, or difficulty with his teacher, his attention will be deflected from the subject matter of class instruction to those anxietyarousing incidents, and learning will be interfered with. For instance, Gaier reports that "the higher the anxiety readiness, the more the individual will attend to objects in his environment rather than to the subject matter itself," and "thoughts about the self increase as the individual's oppositional tendencies increase, and these thoughts tend to grow more self-critical as negativism grows more intense. . . . The thinking is mostly about the individual's personal and intellectual adequacy (or inadequacy) related to the other class members."25 From a study of student anxiety aroused by negative attitudes on the part of the teacher, Flanders concluded that "student behavior associated with interpersonal anxiety (resulting from the attitude of the teacher) takes priority over behavior oriented toward achievement."28

Anxiety, as can be testified from everyday experience, also interferes with memory. Malmo and Amsel believe this is due to interference between relevant and irrelevant responses generated by the patient's anxiety state.27

One of the most devastating effects of anxiety and other strong emotions is the decrease in flexibility of response and the increase in stereotyping and repetitiveness. This was revealed long ago in studies of animals that had been subjected to stress. The phenomenon of fixation as a response to stress has been thoroughly reviewed by Maier.28 In an early experimental study on human subjects in which the problem was to leave a room by one of four doors, Patrick demonstrated that if subjects were put under stress by being electrically shocked, or sprinkled with water, or annoyed by loud blasts from a horn, their attempts at escape were characterized by repetitive or even disorganized behavior.29 He suggests that this is the kind of response that may be aroused in pupils by a teacher who is impatient with them while they are learning the use of certain formulae in algebra.

Experiment has shown that one frequent reaction to punishment or failure is to repeat an act that in the past has in some degree reduced the anxiety and tension, even though in the present situation it fails to do so. 30 Repeated punish-

Anxiety," Journal of Experimental Psychology,

^{42:94-99, 1951.}Also R.E. Silverman, "Anxiety and the Mode of Response," Journal of Abnormal and

Social Psychology, 49: 538-42, 1954.

24 Oskar Diethelm and M.R. Jones, "Influences of the property of the pro fluences of Anxiety on Attention, Learning, Retention and Thinking," Archives of Neurology and B. Thinking, "Archives of Neurology and B. Thinking," rology and Psychiatry, 58:325-36, 1947.

Gaier, op. cit., pp. 14, 20.

R. A. Flanders, "Personal-Social Anxiety

Learning Situaas a Factor in Experimental Learning Situations, Torris Experimental Learning Situations, Torris 12 Passenth, 45: tions, Journal of Educational Research, 45: 100-110, 1951.

²⁷ R.B. Malmo and Abram Amsel, "Anxiety-Produced Interference in Serial Rote Learning with Observations on Rote Learning After Partial Frontal Lobotomy," Journal of Experimental Psychology, 38:440-54, 1948.

28 N.R.F. Maier, Frustration (New York, McGraw-Hill Book Company, 1949).

29 J.R. Patrick, "Studies in Rational Behavior

and Emotional Excitement, II: The Effect of Emotional Excitement on Rational Behavior in Human Beings," Journal of Comparative Be-

havior, 18:153-95, 1934.
30 I.E. Farber, "Response Fixation Under Anxiety and Non-Anxiety Conditions," Jour-nal of Experimental Psychology, 38:111-31,

ment or failure, or increased severity of punishment, serves to increase the tendency toward repetitive behavior.

This means that an anxious person tends to avoid improvisations in a problem-solving situation. Instead of trying something new or different, he is prone, in his confusion, to go around in a circle, repeatedly trying possible solutions that have not worked in the past.31 This tendency toward fixation of response, stereotyping, and repetitiveness not only inhibits effective creative thinking, reasoning, and problem solving but renders them impossible.

However, on occasions when persistence is a merit, it may be remembered that anxious individuals can be counted on to show the greatest persistence, particularly in stressful situations.32 Ausubel found that anxious individuals tend to maintain their goals and level of aspiration in the face of failure experiences.33 Rosenzweig points out that there are need-persistent reactions to frustration.34

When anxiety becomes more intense, learning responses become less effective. The tendency toward stereotyping may increase, resulting in severe blocking, rigidity, noncooperation, and attempts to leave the task.

Finally, in a significant study, Mandler and Sarason have demonstrated that it does make a difference whether the subject brings old anxiety to the task-

³¹ Ausubel, Schiff, and Goldman, op. cit. Also E.C. Cowan, "The Influence of Varying Degrees of Psychological Stress on Problem-Solving Rigidity," Journal of Abnormal and Social Psychology, 47:512-19, 1952.

32 M. R. Sapirstein, "The Effect of Anxiety

on Human After-Discharges," Psychosomatic Medicine, 10:145-55, 1948.

33 Ausubel, Schiff, and Goldman, op. cit., p.

34 Saul Rosenzweig, "An Outline of Frustration Theory," in J. McV. Hunt, Personality and the Behavior Disorders, Vol. I (New York, The Ronald Press, 1944), pp. 382f.

whether he is an "anxious" person.35 The presence of anxiety in the studies already referred to has been noted by two quite different methods. The subjects' answers to questions asked in some of the studies would indicate whether they have anxious symptoms which would reveal "old" or neurotic anxiety. The Taylor anxiety scale has been extensively used for this purpose.36 The other method for assuring that anxiety is present in experimental subjects is to place them in a stressful situation which might be called "fresh" anxiety. Mandler and Sarason used both methods for assuring the presence of anxiety, and found that high anxiety subjects (old anxiety) do worse on a complex task that involves much anxiety (fresh anxiety) than in a situation which arouses less anxiety. In other words, old anxiety compounds the negative influence of fresh anxiety on

In a later study Sarason and others found that the performance of high (old) anxiety subjects becomes worse under stress because the irrelevant tendencies of their old anxiety help to offset the facilitating and driving effects of the stress; but the performance of the low anxiety subjects actually improved under stress, owing to increased drive level unaccompanied by irrelevant tendencies.37

SOME EFFECTS OF FAILURE

Failure is intimately related to anxiety, and all the effects of anxiety that have

35 G. Mandler and S.B. Sarason, "A Study of Anxiety and Learning," Journal of Abnormal and Social Psychology, 47:166-74, 195236 J. A. Taylor, "A Personality Scale of
Manifest Anxiety," Journal of Abnormal and Social Psychology, 48:285-90, 1953.

37 S. B. Sarason, G. Mandler, and P. G. Craighill, "The Effect of Differential Instructions on Anxiety and Learning," Journal of Abnormal and Social Psychology, 47:561-65, 1952.

already been mentioned in this discussion also pertain to failure and the threat of failure. Failure is intimately related to the concept of self because it is a function of the level of aspiration which is an expression of self-appraisal. Failure tends to lower the level of selfevaluation, and it has been found that high anxiety characterizes those individuals who think of themselves in negative terms.38 It is hard to know whether lowering of the self-concept arouses anxiety or vice versa. Probably there is an interplay of these two factors. Failure leads to "negative anticipatory goal responses." 39 That is, failure makes a person expect less of himself, and this lowering of level of aspiration and self-esteem generates anxiety. Failure makes a person selfdefensive, and the necessity to give attention to the self directs attention away from the learning task at hand.40 Being told that one is inferior increases errors, probably because of the deflection of attention to the self with the consequent lowering of discrimination, and eventual failure or anticipation of failure in a task in which one is highly self-involved may lead to panic.41

³⁸ S. K. Escalona, An Application of the Level of Aspiration Experiment to the Study of Personal Study of Personality, Contributions to Education, No. 937 (New York, Bureau of Publications, Teachers C. W. York, Bureau of Publications, Teachers College, Columbia University, 1948).

Also E. L. Gaier, op. cit.

39 R. R. Sears, "Initiation of the Repression Failure." Journal Sequence by Experimental Failure," Journal of Experimental Psychology 20:570-80, 1937. ⁴⁰ R. S. Lazarus, James Deese, and S. F. Osler, "The Effects of Psychological Stress Upon Performance," *Psychological Bulletin*, 49:293-

317, 1952.

41 Lowering the level of aspiration as indicated seems to be contradictory to the maintenance of level of aspiration mentioned a few paragraphs earlier reporting the results of Ausubel et al., and Rosenzweig. As Rosenzweig points out, need-persistence is the first and most common (and invariable) response to frustration. One may expect a lowering of the level

But failure is not all bad. Actually everyone has at one time or another to experience failure in competition, sports, games, or some other area. Apparently, here again the level of residual (old) anxiety makes a difference. If anxiety is low, failure may lead to improved performance, at least for an intelligent person.42 It is only when there is residual anxiety that failure arouses anxiety, tension, feelings of inferiority, and interferes with performance.

Lazarus and Eriksen have shown that college students with high grade-point averages in college tend to improve under stress in an examination situation, while poor students show a loss and greater variability when intelligence is held constant. Past successes or failures are factors that help to determine how a person will react under stress in the

present.43

Many teachers believe that failure or the threat of failure serves as an incentive. I have heard of some who threaten pupils with low grades during the opening weeks of a school year, and actually give them low grades on their first papers, on the theory that this will prove to them that they cannot expect rewards for indolence. Unfortunately this form of treatment appeals only to the pupils who have least need of it, that is, the pupils who have previously experienced only success and hence are free of anxiety. The anxious, failure-ridden pupils are likely to respond only by deeper discouragement. In this connection two experimenters, Otto and Melby, once

of aspiration only under special conditions of self-threat. (Rosenzweig, op. cit., p. 383)

⁴² Mandler and Sarason, op. cit. 43 R. S. Lazarus and C. W. Eriksen, "Psychological Stress and Its Personality Correlates: Part I. The Effects of Failure Stress upon Skilled Performance," Journal of Experimental Psychology, 43:100-05, 1952.

demonstrated that the elimination of the threat of failure in an elementary school did not result in lower achievement. There is no evidence that pupils achieve less because they are not made anxious by the threat of failure.44

Under intense anxiety, behavior becomes disorganized and disruptive. These effects may be compounded if the person grows preoccupied with thoughts of possible failure, humiliation, and similar threats to himself. This disorganization may spread so that the individual becomes "anxious," "neurotic," and more "emotionally unstable" in a general sense. Interestingly enough, some persons tend to compensate for these disorganizing tendencies by becoming (and probably ineffectively) more courageous, patient, or determined.⁴⁵

One of the disastrous outcomes of the arousal of intense anxiety is that adjustments to it seem to have a kind of permanence. When the anxiety is mild, the stereotyping, repetitiveness, and other maladjusted responses tend to wear off (be extinguished). But when the anxiety is severe, disorganized, maladjustive, neurotic responses acquire a permanence that indicates a damage or lesion that does not spontaneously repair itself. Solomon has called this "partial irreversibility." 46

This recital of the effects of anxiety on learning deserves serious consideration. A parent or a teacher who punishes

⁴⁴ H. J. Otto and E. O. Melby, "An Attempt to Evaluate the Threat of Failure as a Factor in Achievement," *Elementary School Journal*, 35:588-96, 1935.

⁴⁵ O.R. Davis, "Increase in Strength of a Secondary Drive as a Cause of Disorganization," Quarterly Journal of Experimental Psychology 1:22-28, 1948.

⁴⁶ R.L. Solomon and L.L. Wynne, "Traumatic Avoidance Learning: The Principles of Anxiety Conservation and Partial Irreversibility," *Psychological Review*, 61:353-85, 1954.

a child or causes or permits him to fail is playing with fire. Like fire under control, mild anxiety can be of the greatest service, for it motivates to high endeavor and accomplishment. But, also like fire, anxiety can cause great and irremediable damage.

IMPLICATIONS FOR EDUCATION

What are the educational implications of these findings? We shall speak principally of the effect of anxiety on learning.

In general, anxiety in the classroom interferes with learning, and whatever can be done to reduce anxiety should serve as a spur to learning. This follows quite naturally from a general psychological principle first enunciated by Mowrer in 1940: that anxiety reduction is a reinforcement to the behavior preceding or accompanying it.47 This means that if success enables a child to avoid anxiety-provoking reactions on the part of the teacher, then high achievement is a goal which will be sought by pupils. Putting it positively, pupils are powerfully motivated to achieve in order to win their teacher's esteem, approbation, and praise.

Teachers have been taught, from recent discussions of mental hygiene, that anxiety is to be avoided at all costs because of its devastating effects. "Many teachers do not dare to make demands on the child, and they hesitate to take steps that might be interpreted as a threat. Because therapy is carried out in an atmosphere of permissiveness, teachers are encouraged to believe that they should be more permissive in dealing with pupils. As a result many teachers do not dare to put pressure on a child,

⁴⁷ O. H. Mowrer, "Anxiety Reduction and Learning," Journal of Experimental Psychology, 27:497-516, 1940.

to assign tasks or to make requirements of him, lest the child become emotionally disturbed as a result. Examinations are abolished and marking systems modified because these tests and evaluations become threats instead of challenges." 48

But psychology has demonstrated that anxiety has its positive as well as its negative values. As an energizer, anxiety—mild anxiety—serves a real function in education. Because of the fear of anxiety teachers have all but lost the art of challenge and encouragement. But there is a place for challenge in education, for placing difficult tasks before pupils—tasks in which there is a possibility of failure, tasks that require effort, persistence, and the use of one's powers. And this challenge may well be accompanied by commensurate rewards for those who are successful.

But challenge should not be offered indiscriminately. It should be given to pupils who are strong and confident, who accept the challenge willingly and with a release of their energies. Such a pupil is one who has formerly tasted success in easier tasks and thus can meet the new task with confidence, unafraid. Children who have experienced success ought to be challenged. In their case anxiety leads to increased effort and the higher satisfactions of successful accomplishment.

The pupil who has failed in the past needs to be given tasks on a lower level of difficulty—easier tasks that he can accomplish, tasks that can give him the experience of success. Anxiety, aroused in the child who has failed, leads to fixation, repetitiveness, disorganization, turning from the task, and discouragement, and these responses are to be avoided,

for they turn a child away from learning. The child who fails to learn to read needs a fresh start with new materials on a level that he can master, so that he can experience the taste of success with reading. The child who has difficulty with arithmetic needs a fresh approach to numbers with simple exercises and problems that he can do successfully before he is challenged with more difficult problems.

This means that the teacher must know her pupils and how they will respond to stress and challenge. The child who is secure, stable, and free from neurotic tendencies can safely be given harder and more difficult tasks with greater challenge. But the anxious, neurotic child needs to be given easy tasks without too much pressure, threat, or challenge. With the stable child the possibility of failure is a risk worth taking, because he has had the taste of success in his past and has learned how to meet the threat of failure. But the neurotic, anxiety-laden child has already been harmed by threats and failure. He needs to taste success in tasks that do not threaten or challenge him too much until he has gained strength, and residual anxiety is no longer present. It must be admitted, however, that the child who has once been anxious, who has suffered punishment, or who has experienced failure, probably never overcomes the weakness that results from these experiences, and is ever after liable to succumb to stress that he may encounter. This means that it is extremely important to arrange that a child experience success from the beginning if he is to have good learning potentiality in later years.

In this connection teachers need to be helped in their assessment or diagnosis of the emotional stability of a child. It is as important for a teacher to know

⁴⁸ P. M. Symonds, "Is Frustration Compatible with Good Mental Hygiene?" *Progressive Education*, 30:107-10, 1953.

the anxiety level of a child with regard to learning tasks as it is to know his IQ. I foresee schools of the future giving children tests to determine their anxiety level which will be on a par with tests of intellectual level. Then the child with low anxiety level who has been successful in the past may be challenged to go on to more advanced and difficult tasks; whereas the anxious child who has been hurt by past failure may be presented with simple tasks within his range of competence.

Sarason and Mandler report that college students anxious about examinations show slightly lower actual grade averages than nonanxious students, but the results could have been attributed in this experiment to chance, and no effort was made to control other variables, such as intelligence. Experienced musicians, singers, public speakers, actors, and athletes will tell you that they suffer various degrees of stage fright and anxious malaise before a performance, but that this preliminary anxiety in some way seems to be necessary to enable them to put on a stunning performance.

What has been said may be interpreted to mean that a little anxiety about examinations may be a good thing, certainly not to be discouraged, but that extreme anxiety may be disorganizing. Incidentally, there is nothing about an examination question written or printed that is inherently anxiety-arousing. All of the anxiety inherent in the examination situation comes from the reactions of other individuals—parents and teachers—to examination results. Teachers have the power to make an examination a challenge, or an ordeal to be dreaded or avoided if possible, by the attitude they

⁴⁹ S. B. Sarason and George Mandler, "Some Correlates of Test Anxiety," *Journal of Abnormal and Social Psychology*, 47:810-17, 1952.

take toward it and toward the results that individual pupils achieve.

WHAT TO DO ABOUT FAILURE

Success and failure were mentioned earlier as important determinants anxiety. From one point of view it would be desirable if failure could be eliminated from the vocabulary of educators, because its influence as a concept seems only to be harmful. No child should be told that he is a failure, or that he has failed. Bowing to reality, however, it is necessary on occasion to tell a student that he has not met certain requirements, in which case guidance ought to be substituted for failure. It is not sufficient to tell him that his work has not met set standards and then leave him out in the cold to work through his problems unaided. In addition to reporting to him his test results, a counselor should help the student plan for the future-to decide whether to try again, or to seek some alternate goal. Any person is unwise to put all of his eggs in one basket and to make the passing of a given examination everything or nothing. In embarking on any enterprise a person would be well-advised in advance to consider other goals in case his striving does not prove successful. But the word failure is too deeply imbedded in the educational vocabulary to justify the hope that it may be abandoned.

I doubt if schools have ever given attention to helping children adjust to failure. Failure is a necessary experience in life. Whenever two individuals play a game one wins, the other loses. Whenever two teams meet in a contest, if one wins the other loses. In school, only one pupil can stand at the top of his class on any test or exercise. To stand second or third or at the median is certainly not to fail, but neither is it to "win," and is in-

terpreted as failure by many pupils (and by their parents). What do schools do to teach pupils how to react to failure? The winner is congratulated, praised, and receives honors. The loser slinks away into obscurity.

A British writer, Gandine-Stanton, has given attention to this problem of the reactions to failure.50 She believes that some experience of failure is essential to balanced development, if only to aid in the appreciation of success. Each experience of failure increases the fear of failure, and this invites further failure. Gould in a level-of-aspiration experiment⁵¹ studied the reactions of her students to failure and found a bewildering assortment of reactions. Some individuals were stimulated to do better, others became discouraged and lost interest in trying, still others became disorganized and confused with regard to the task and their relations to it. Some attempted to overcome discouragement by such devices as making excuses and attempting to rationalize their poor performance. Some refused to hold the backward look and insisted on focusing their attention on possible successes in the future. Some lost interest in the task and showed signs of wishing to quit. Others attempted to compensate for their failure by pushing themselves to accomplishments in other directions. Some managed to escape the threat of failure by concentrating their attention on certain aspects of the problem, such as making a game out of the accuracy of their estimates or keeping a record of their performance and treating the results statistically.

Gandine-Stanton discusses what may be the more constructive reactions to

50 D. A. Gandine-Stanton, "A Study of Failure," Character and Personality, 6:321-34, 1938. Rosalind Gould, "An Experimental Analysis of Level of Aspiration'," Genetic Psychology Monographs, 21:3-115, 1939.

failure. She believes that putting forth more effort as a reaction to failure, although a very common response, is usually relatively futile. Seldom does a person fail in a task because he did not try hard enough. She suggests that instead of putting forth more effort, frequently it would be more appropriate to diminish the energy output and to stop altogether in order to survey the situation. Usually one fails because he used poor methods; to improve he must change his performance in some way. After failure perhaps the best policy is to stop and think, What can I do differently? Certainly one is poorly advised merely to try again the same methods and try harder this next time. If one is faced with insuperable difficulties because of his own lack of ability or skill, or because of the conditions surrounding the task, it would be better to withdraw (or to make up the deficiencies) rather than to continue unsuccessful efforts.

A teacher would do well to take an unsuccessful student aside and discuss with him his feelings and attitudes toward his failure, and what steps he might take next-not necessarily to redeem himself, but to make the most effective use of his efforts and abilities in the situation. There have been few reports of efforts to teach pupils how to react to failure. One report by Keister and Updegraff of work with young children showed that after training in puzzlesolving children tried longer, manifested more interest in solving problems, and completely eliminated emotional behavior in connection with difficulties they might encounter with them.52

Incidentally, it is equally desirable to

52 M.E. Keister and Ruth Updegraff, "A Study of Children's Reactions to Failure and An Exploratory Attempt to Modify Them," Child Development, 8:241-48, 1937.

teach children how to react to success. Just as unfortunate attitudes toward failure may develop, so a child may develop unfortunate attitudes toward success. He may become overconfident, he may feel that the world owes him success, he may be unable to tolerate stiff competition, and he may become too self-satisfied. Some of these attitudes may be the result of attitudes expressed toward him by others, but some of them may be outgrowths of the fact that he has experienced only success. Everyone should have the opportunity to learn how to react constructively to both success and failure.

This discussion has been exclusively concerned with the negative emotions, principally anxiety. What about the positive emotions-love, happiness, euphoria? Strangely enough we know less about the influence of positive emotion on learning than we do about negative emotion. Within the past decade, owing to the influence of the clinical study of individuals with emotional difficulties, many persons have been encouraged to answer psychoneurotic inventories and to answer questions about their "problems." But the positive emotions still remain in the private domain, and psychologists have not encouraged individuals to reveal the secrets of their passions.

By and large we know that learning is helped by success. We are told that love of teacher is one of the prime incentives to learning in school. But common observation tells us that when positive emotions become too strong they too can become disorganizing. (Perhaps there is an element of anxiety present when positive emotions become intense.) The lovesick adolescent is diverted from his studies. Too much mooning and yielding to infatuations can usurp attention from more serious learning until the disorganization can be characterized by such an ugly term as debauchery. Apparently, then, the findings with regard to the negative emotions apply equally to the positive. Mild positive emotion has a stimulating and energizing effect, perhaps even stronger and more salutary than anxiety, but strong positive emotion can also become disorganizing and disruptive of learning.

We may resolve the dilemma posed at the beginning of this discussion by saying that mild emotion serves as an important and indeed essential incentive to learning, but that when emotion becomes intense, and particularly for the individual who has not wholly adjusted to previous stressful situations, it can become disorganizing and hence interfere

with learning.

Discovering and Stimulating Culturally Deprived Talented Youth*

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THE Demonstration Guidance Project, initiated at Junior High School 43, Manhattan, in September 1956, was recommended by the New York City Board of Education's Commission on Integration to prevent the stifling of educational motivation in children from families struggling economically and without an educational tradition. Most of the children from this background leave school as soon as possible to earn money. Having failed to achieve their educational potential, they are depressed vocationally and educationally and their talents are lost to higher education manpower pools. This experiment is the forerunner of the national Community Talent Search, sponsored by the National Scholarship Service and Fund for Negro Students, to assist local communities to discover their hidden human resources from all economically deprived groups regardless of race, creed, or sex. It is hoped that the experiment will help communities to achieve the American ideal of equality of educational opportunity for all.

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FACTS AND FIGURES

Among the many research references that may be cited, two¹ summarize studies of facts and figures. These summaries reveal that: (1) only about half the nation's students graduate from high school; (2) fewer than half (45 per cent) of the high-scoring seniors plan to go to college; (3) a striking amount of economic and cultural determinism is connected with college-going; and (4) relationships between socioeconomic status, scholastic ability, and failure to go to college indicate the necessity for early identification and motivation of youth with college ability.

BACKGROUND OF SCHOOL POPULATION

Junior High School 43, Manhattan, was selected for this project because it met, as closely as possible, the criteria set up by the Commission; namely, that the school have a low status socioeconomic and mixed ethnic population, a coeducational school population, an outstanding and

¹ Cole, Charles C., Jr., Encouraging Scientific Talent (New York: College Entrance Examination Board), 1956.

Hollinshead, Byron S., Who Should Go to College (New York: Columbia University Press), 1952.

dedicated principal and counselor, and accessibility to an academic high school—George Washington High School—in which the study of most students is continued. The ethnic composition of the school population is approximately 48 per cent Negro, 40 per cent Puerto Rican, and 12 per cent white.

MAJOR OBJECTIVES OF THE STUDY

Succinctly stated, the major objectives of the study are:

To identify all potentially able students through the use of a variety of techniques, including appropriate group and individual tests and teacher and counselor observations and ratings, recognizing that the usual tests of academic aptitude and achievement may underestimate the potential ability of culturally deprived children.

To experiment with new approaches to the identification of able students, including new tests, devices, and techniques that may provide clues to potential achievement.

To test the validity of the methods of identifying able students and predicting academic progress over a period of several years.

To develop an intensive, stimulating individual and group counseling program. This will entail several approaches: (1) providing increased guidance personnel-one guidance counselor for at the most every 300 pupils in the junior high school; (2) instituting an expanded, dynamic group guidance program; (3) organizing intensive individual counseling when needed; (4) developing a more intensive parent education program; (5) coordinating and centralizing school records for guidance use and coordinating related services; (6) providing remedial work, curriculum enrichment, and opportunities for acceleration where indicated; (7) providing clinical service where needed, including psychological, social work, and psychiatric consultation; (8) coordinating with out-of-school community agencies; and (9) supplying temporary financial aid to students in need.

To develop a program for teachers

through workshops and staff conferences to assist them in the identification and stimulation of these children, and in the modification of curriculum.

To continue this program of stimulation through the high school years, having one guidance worker transfer to the high school with each grade.

To measure pupil growth in abilities, educational achievement, and educational and career aspirations at periodic intervals during the study.

To increase the percentage of students entering college or other post-high school institutions, and those completing high school, and decrease the percentage of those leaving school. This objective will be evaluated by comparing similar groups of students who have graduated from the same junior high school in the years preceding the experiment and possibly current students of other junior high schools.

TIME PLAN FOR THE PROJECT

The project was planned for a period of six years, so that the 1956 seventhgrade junior high school students selected for this study could be followed through graduation from senior high school in 1962. Its importance lies not only in services rendered and information acquired about the particular group-grades 7, 8, and 9-under study but, more important, in providing a pilot approach to a major socioeducational problem that exists nationally-motivating and helping able students to continue their education beyond high school. It is hoped that much will be learned that can be applied to a large segment of the general population to improve their education, thereby increasing the contribution they can make to the national welfare.

RESEARCH DESIGN

The special emphasis of this report is on the research and progress to date. It is premature to say what the conclusions will reveal, but the trends will be indicated. The major foci of the research include:

Identification of academically talented students by comparative studies and correlational anlaysis of group and individual intelligence test scores of verbal and nonverbal content, "culture-fair" * tests, achievement test scores, rating scales, cumulative record data, and teacher judgments of academic aptitude.

Intensification of the counseling program for students and the parent education program to be evaluated by evaluative criteria techniques, interview, questionnaires, and observation.

Teacher training to be evaluated by reports of supervisors, observation, and selfevaluation.

Follow-up of students by questionnaire interview, analysis of student school grades and test scores, including high school and post-high school records. This includes studies of comparable student populations in previous years to survive in terms of percentage completing high school, percentage entering post-high school institutions of learning and, if possible, similar groups from comparable schools.

PROGRESS REPORT TO JUNE 1958

Identification of Able Students

For the initial report of progress to date, which will be refined by further studies, the results indicate that a college preparatory student in grade 9 should have: (a) an average of at least 65 per cent in five major subjects of the junior high school ninth-grade curriculum; (b) an IQ of 90 or above on a standardized verbal test; (c) a nonverbal IQ of 100 or above; (d) a paragraph-meaning grade score of at least 7.0; and (e) a grade score

"Culture-fair" is a concept applied to tests that purport to minimize the differences in of at least 6.5 in arithmetic reasoning on nationally standardized tests. These results, correlated with first-term averages, indicate possible success in a college preparatory course in grade 10 at George Washington High School in New York City. Additional studies and refinements of the identification criteria will be made as the study progresses in this senior high school. Thus, more definitive criteria and predictors of college preparatory success may be revealed. The aim has been to include any student who has a chance for success in a post-high school institution of learning.

Improvement in Reading and Study Skills

In both the junior high school and the senior high school, intensified programs in reading and work-study skills have been applied to the students selected as prospective college preparatory candidates. As measured by objective and standard tests, the progress and achievement of these students have been above the norm usually attained. The gain in reading ability exceeded by two months, or one-fifth of a school year, that normally expected of them. The motivational and instructional program is paying dividends in terms of academic achievement. Similar improvements are evident in mathematics and foreign-language programs where special instructional and tutorial plans have been employed with students from low-status economic and cultural backgrounds.

Because of the cultural deprivation in homes, special efforts are required to help students from these homes to achieve academically with their peers from cultur-

ally privileged homes.

test content that may be associated with any one cultural environment.

Intensification of Counseling Program for Students and Parents

The cultural enrichment program for students, the intensified guidance program for students and parents, and the total effect of the school program have spurred students and parents to aspire to realize the potential of the culturally deprived students. During the first and second years of the study a series of parent workshops were held in the school. Home visits were made by a social worker, guidance counselors, and teachers.

The results of a questionnaire survey indicate that the wish of many students to achieve a higher occupational and educational status than their parents is shared by the parents. Approximately two out of three of the probable college-preparatory course boys aspire to enter a career of professional status. Easy-to-reach parents have similar aspirations for their children

During the first year of the project more than 850 individual personal or telephone contacts were made with parents to enlist their cooperation in furthering the best interests of their children and to acquaint them with the purpose of the project. But it was still difficult to reach many of the parents even after multiple contacts.

Special efforts were made during the second year of the project in the junior high school (1957-58) to see each parent or guardian at least once. The counselors succeeded in seeing over 90 per cent of the parents of the more than 500 experimental students still in the junior high school. Some of these parents were seen early in the morning, before school opened, so that they would not miss too much time from work.

A special research study was made of twenty-five of the parents who could not be seen by the counselors. These consisted of (1) parents who said they could not come to school and (2) parents who did not respond at all to the counselors' attempts to contact them.

These hard-to-reach parents were not actually inaccessible or resistant. When arrangements were made to visit them at home at hours convenient to them, generally in the evening, all were responsive and cooperative.

They varied in background, aspirations, and expectations and there seemed to be real differences between the two groups. Those who replied that they could not come to school were prevented by practical limitations, while those who did not reply were further deterred by attitudes or feelings that if the child was not in trouble there was no need to go to school, and hesitancy because of inability to speak English. The first group was generally from a higher occupational and educational background, had higher aspirations for their children, more frequently expected them to attain these goals, and were more keenly aware of educational and career opportunities than the second group. The latter group was more likely to be concerned with immediate problems and less with long-range plans of their children.

Teacher-Training Program

This study has involved teachers as well as students and parents. The reports of supervisors and observers and self-reports from teachers have been uniformly favorable. Teachers have understood the purposes of the study. They have cooperated. They have been sympathetic and have voluntarily devoted time and services to achieve the major objectives of the study. All but a small minority have supported the idea of helping the economically and culturally deprived stu-

dents to realize their maximum goals, educationally and vocationally.

Follow-Up of Students

It will not be feasible until 1960 and later to determine the post-high school careers of the original ninth, eighth, and seventh grade experimental pupils in this study. The bases of comparison will be with pupils from the junior high school who have attended post-high school institutions of higher education. The classes of 1953 and 1954 graduating from Junior High School 43, Manhattan, had 10.1 per cent and 10.7 per cent, respectively, applying to post-high school institutions for further education. Of these, 7.3 per cent have applied each year to liberal arts colleges, 2.4 per cent to community colleges, and about 1.1 per cent to nursing or medical aide schools. These data will be the bench mark with which later classes involved in the study will be compared. The comparisons will be equated with national and local trends in post-high school applications and registrations.

In a special study of the graduates of Junior High School 142, Queens, with

white and Negro students of approximately the same middle class socioeconomic status, 69 per cent of the white and 75 per cent of the Negro students expect to go to college. This study indicates that these Negroes have a higher level of aspiration to attend college than is found among a similar selected sample of white students of comparable socioeconomic status.

Summary

This study is new only in the sense that a special effort is being made to motivate and stimulate academically able students from low-income homes and their parents to aspire to maximum educational goals. It is supported by the Board of Education of the City of New York, National Scholarship Service and Fund for Negro Students, and the College Entrance Examination Board. It may contribute to our knowledge of how much special services in guidance, instruction, and cultural enrichment can affect the educational goals and achievements of able students from economically and culturally deprived homes.

The Arts in a Satellite Age*

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N HIS article "Education and the Technological Revolution," George S. Counts has convincingly described the influence of modern technology on every aspect of our lives, today and tomorrow. There can be no question but that science has become an all-powerful force in many spheres: industry and agriculture, medicine and public health, communications and the waging of war. Indeed, it has the clear potential of making the world we live in a veritable Utopia in the decades that lie ahead-or, at the other extreme, a macabre, radioactive wasteland with, at best, a surviving band of mutated human monsters vaguely trying to remember what went wrong back in the mid-twentieth century.

No thinking person would dispute Professor Counts's conclusions. For us to retain our greatness as a nation, or indeed even to survive in the face of the now more widely recognized Soviet advances in education and technology, we must place far heavier national emphasis on science and the preparation of scientific

* Professor Kraus is in charge of dance education in the Department of Health Education, Physical Education and Recreation at Teachers College, Columbia. He is the author of several books on recreation leadership, among them, Play Activities for Boys and Girls (McGraw-Hill, 1957).

¹ George S. Counts, "Education and the Technological Revolution," *Teachers College Record*, 59:309-18, March 1958.

personnel. Not only does this involve the education of more skilled engineers, chemists, and physicists; it will necessitate also the creation of a population that is technologically literate and that has respect for scientists and their achievements. If the Soviet Sputniks have brought us to this realization, we should be grateful for them.

There is danger, however, in the acceptance of the attractive, pat solution "build more and better scientists." Obviously this can be done, through subsidies, grants, research programs, curricular revisions, and the like, if we put our national will to it. But will this course of action alone solve our problems and dispel the unwelcome Soviet threat?

First, we must recognize that the problem is one not only of creating more scientists, but also of using them most effectively. Manpower experts tell us that we have a considerable number of skilled engineers today who are being used in managerial, supervisory, and even clerical capacities. Clearly, if we are to go to great lengths to develop scientific manpower we must use it to best advantage.

Second, we must resist the imbalance in educational emphasis that is likely to result from an incautious response to national hysteria. If we permit professional education to become so narrowly channeled that it will be turning out the super-

specialist, the chemist or physicist who knows only his own field, we will suffer a major setback in American education. A number of leading educators, presidents both of liberal arts colleges and of schools of technology, have decried this trend. As one, they have expressed the conviction that the arts and sciences are not mutually antagonistic, but complementary, and that we must strive to preserve balance and diversity rather than overspecialization in higher education.

Dr. Robert F. Goheen, president of Princeton University, has stated this point

of view:

Our society needs educated individuals to play fruitful roles in our social and political life as well as in the production of new scientific knowledge and of engineering techniques, including missiles and satellites. A scientist without broad humanistic training may be irresponsible and short-sighted.²

WHAT SCIENCE CANNOT DO

Dr. Goheen's statement suggests the most important fallacy in the assumption that through technology alone we can achieve strength and security. There are some things that science cannot do. The most important of these have to do with the realms of values and moral choices, of human feelings, convictions, and decisions. A perfected machine can do what it is told to do, but the degree to which it can make its own choices—even in the most advanced devices of automation—is severely circumscribed and, in fact, has already been settled by the inventor. It still takes a human being to press the Switch, pull the trigger, release the rocket. And a machine cannot, today or in the foreseeable future, conduct negotiations,

²Robert F. Goheen, as quoted in Benjamin Fine, "Education in Review," New York Times, tion, p. 11.

offer a hand in friendship, or sway the will of a nation.

In the spheres of human values, moral convictions, and feelings it is clear that religion, philosophy, and the arts are

paramount.

It is the purpose of this discussion to examine the role of the third of thesethe arts-in the light of the contribution they make to our nation's strength and security. For many, this may represent an unacceptable assumption—that the arts are capable of making such a contribution. To them, the arts may be important in terms of gracious living and of experiencing aesthetic sensations of beauty, but certainly far removed from the major issues of national survival. Is this true? Let us examine the arts first in terms of their role in international relations, and then in terms of their function in national life.

ARTS AND THE INTERNATIONAL SCENE

Americans have, during the past year, paid considerable attention to achievements of the Russians in the fields of education and science, and have grimly resolved to heed the Soviet example in these areas. But we have, in large part, overlooked the effective use that they have made of cultural ambassadors. As Howard Taubman pointed out,3 the moment that World War II ended, their (the Russian) artists entered the occupied nations of Europe. They came in vast, impressive swarms—and they are still coming. They were inflicted on the satellite nations of Eastern Europe as part of special Soviet Friendship Months,4 and they were thrown, like shock troops, into

³ Howard Taubman, "Cold War on the Cultural Front," New York Times, April 13, 1958, Sunday Magazine, pp. 12-13, 107-8. ⁴ Leland Stowe, Conquest by Terror (New York, Random House, 1952), pp. 232-46. the uncommitted nations of Western Europe at times of national elections and political indecision. This year the Moiseyev dancers experienced a triumphant tour of the United States, the Moscow Art Theater performed in Paris and the Georgian folk dancers in Rome, and a gold palm first prize was awarded the Soviet film "The Cranes Are Flying" at Cannes.

Clearly, the Russians are not satisfied with their scientific programs, or with the forms of economic warfare which they have been waging so successfully throughout the world. They have been and still are waging a full-scale cultural cold war. For us, this represents a challenge and an opportunity. Howard Taubman comments:

If a cold war is unavoidable, it is least perilous when waged with laughter and beauty, with heart-lifting aspirations and life-giving visions. For the arts do not destroy; they create. They remind us that the soul of man is indivisible, no matter what distances and differences there may be among nations and their political, economic and social institutions. A picture, a poem or a song can give form to inchoate yearnings all flesh is heir to....

Because the arts express man's precious inner life, they . . . can surmount the barriers of languages and frontiers. They can be an eloquent ally in the struggle for mutual understanding and trust. If you wish to win the good opinion and affection of peoples, you will do so more persuasively if you show them your artistic achievements than if you display your strength or material wealth.⁵

Two illustrations of this occurred during the spring of 1958, when the young American pianist Van Cliburn won first prize in the International Tchaikovsky Competition in Moscow and returned to national adulation in the United States while, simultaneously, the Moiseyev Folk

Ballet toured this country entertaining capacity audiences in all major cities. What did these two striking events signify? For one thing, that the communicative powers of music and dance can surmount, as Taubman puts it, the barriers of languages and frontiers. Secondly, they demonstrated the willingness of people in each nation to enjoy the art of the other; to acknowledge mutual creative urges and abilities. So, the troupe of Russian dancers and the young American pianist accomplished much in terms of good will for their own country and of human understanding in general.

There have been numerous other examples of cultural emissaries on both sides of the Iron Curtain. A company of Gershwin's folk opera, "Porgy and Bess," toured Europe and the Soviet Union, thrilling their audiences with an unaccustomed form of theatre art and, incidentally, giving many Europeans a new view of the American Negro and his opportunities. Marian Anderson and Louis Armstrong are but two of the great American Negro performers who have accomplished similar missions.

Particularly in the Orient, where music, painting, and dance are closely intertwined with the cultural heritage of the people, our artistic ambassadors have been enthusiastically received. The Martha Graham Dance Company was welcomed by the *Times* of Indonesia with these words:

Once in a generation a gifted individual is endowed with the ability to project to strangers some brilliant facet of a nation's art and thereby reveal something of its soul. This Martha Graham has done with such virtuosity that she has dispelled the prevalent notion that Americans live in a cultural wasteland peopled only with gadgets and frankfurters and atom bombs.

⁵ Taubman, op. cit., p. 12.

⁶ Taubman, op. cit., p. 107.

To some extent, such tours have been carried on with the aid of the State Department, which gives support to efforts like the International Exchange Program of the American National Theater and Academy in sending the New York City Ballet Company and Ballet Theater overseas. Another agency which has been active in this field is the Institute of International Education, which in 1956 held a Conference on the Arts and the Exchange of Persons, and more recently published a Directory of International Scholarships in the Arts.7 This booklet shows an impressive number of opportunities for international travel and study in the fields of architecture, creative writing, dance, design, music, painting and sculpture, and the theatre arts. And of course there has been a certain amount of independent interchange of the arts. American playwrights have had their works produced overseas, and many artists and writers have held exhibitions or had books published through private arrangement.

But, viewing the whole picture, how does our national effort in the field of the

arts measure up?

By any standard, and particularly when compared with the Soviet support of cultural ambassadors, it has been inadequate. As an example, the Russians spent at least \$50,000,000 for their pavilion and artistic attractions at the Brussels World's Fair, while the United States spent \$13,445,000 a similar effort.8

Not only have our international cultural programs suffered from insufficient financial support; they have been ham-

The Arts and the Exchange of Persons, Proceedings of the Conference (New York, tute of International Education, 1956), and ory of International Scholarship in the 10 (New York, Institute of International tolation, 1958).

l'aubman, op. cit., p. 107.

pered on occasion by political pressures and interference. We are well aware of the iron controls exerted by the Soviet leaders over all forms of artistic expression in their land. The artist, the dramatist, the composer, the novelist must all adhere rigidly to the accepted political "line"; any attempt to deviate is ruthlessly punished. Surely, in America there is no comparable sort of manipulation of the arts for political purposes. However, in recent years there have been unfortunate instances of political interference with cultural programs Two illustrations

In 1946, the State Department assembled seventy-nine paintings by living American artists and sent the collection on a European tour in an effort to compete with the officially sponsored exhibitions that France, England, and especially the Soviet Union had been sending around Europe. The show met with such acclaim, first in Paris and then in Czechoslovakia, that Russia immediately organized and dispatched a rival exhibition. At this point, General George C. Marshall, then Secretary of State, was compelled to call the exhibition back because a number of Congressmen had complained that the paintings were too "modernistic," and that several of the painters had left-wing affiliations. The paintings were put into dead storage and later sold, and the venture was entirely abandoned.

Ten years later, in 1956, foreign tours were planned for three important art exhibitions and the Symphony of the Air. The art exhibitions had been prepared by the American Federation of the Arts, whose president was James Schramm, a leading businessman and former member of the Republican National Committee, and whose board is composed of important museum officials and civic leaders. The Symphony of the Air, the worldfamous orchestra originally formed by Arturo Toscanini, had toured Japan the previous year. There it had been enthusiastically received and had served to generate good will for the United States.

Yet these proposed tours were cancelled, the reason given being that some of the artists or performers involved had at one point had questionable political associations. While such action may be open to discussion, it is difficult to see, on the face of it, how such past associations could have harmfully influenced the tours in any way. None of the paintings or musical works contained anything of a political nature. Indeed, one of the exhibitions of paintings dealt with sporting events—hardly a controversial subject. Of the artists in question, several were no longer even alive.

This sort of exaggerated caution and financial conservatism in support of cultural tours have undoubtedly had much to do with the ineffectiveness of our total international effort in the arts.

THE ARTS IN AMERICA

Even those who may reluctantly concede that art is an effective ambassador of good will to those nations of the world that have a distorted or an incomplete picture of our country are likely to believe that art, within our own society, has a limited and shallow function. In this they are supported by the traditional American value system that attributes great worth to practical, material physical achievement but minimizes the importance of things of the spirit. This attitude, so unlike that of most other nations of the world, is partly due to our rigid pioneer and Puritan traditions and partly to our comparative youth as a nation, and our amalgam of cultural heritages.

To return to opening paragraphs of this discussion, there is little doubt that in our society art is a poor second to science in the life of the nation. Most people, as Brooks Atkinson has pointed out, have far more confidence in the objective standards of the scientific point of view than they have in the insights, passions, aspirations, and wonder of the poets. But, Atkinson goes on to say:

. . . it [science] does not satisfy every need. We cannot build mental hospitals fast enough to look after those who have succumbed to psychic disorders. The common life that ought to be enjoyed and sustained by everyone is marred by juvenile delinquency, riots against Negro school children in the South, vilification of nonconformists, distrust and suspicion of neighbors, and other forms of hysteria that derive largely from lack of human understanding. This is the area where insight is needed and this is the area where our civilization is out of balance. We know the price of everything but we are not much concerned with its value.9

Obviously, art cannot of itself impose a set of values or moral laws. What it can do—and this refers chiefly to the kinds of art which Suzanne Langer terms "discursive" (that is, having recognizable meaning, as opposed to completely abstract content)—is heighten awareness and understanding of life.

This is true of all art, whether discursive or nonobjective, which in some fashion reflects man's universe and, through the skilled organization of sound, form, color, line, or movement, arouses his aesthetic response.

But it is particularly so in those forms of creative expression which are based on the use of language, such as the poemplay, or novel. Here, man comes face to face with his human condition and dgethe ultimate, deepest concerns of his

⁹ Brooks Atkinson, New York Times, tember 30, 1956, Sunday Theatre Section, tence. Speaking for and from the soul of its creator, such art has the unique power to dramatize and clarify human relationships, to induce vivid self-identification, pathos, and indignation, and to impel the viewer into action.

There have been works of art which were also powerful social documents in all ages. An example of comparatively recent vintage is the moving play "The Diary of Anne Frank," based on the actual diary of a young German-Jewish girl who, with her family and friends, hid in a Dutch attic for over two years, but who finally was discovered by the Nazis and died in a concentration camp. In 1956, this play opened in six German cities. According to a Reuters dispatch, it touched the conscience of the public more profoundly than anything else bearing on the subject of the Nazi slaughter of Jews:

Deeply moved theatre audiences received the play in shocked silence. . . . When movies actually taken in a concentration camp were shown to German audiences just after the end of the war, they were received with derision and disbelief. But the reception given to this play . . . was different. The impact of its portrayal of the horrors of Nazism struck home, as the silence that greeted most of the performances showed. 10

A number of reviewers in German newspapers drew parallels between the Nazi terror as portrayed in the play and the Soviet control of East Germany, or suggested that it was a "stirring warning against the threatening revival of the Nazi regime. . . ." But perhaps the most significant outcome of the play's German Performance was that, three months later, a recreational and cultural center for children, the Anne Frank House, was opened by the city of West Berlin.

Small wonder that in a dictatorship,

10 Brooks Atkinson, New York Times, October 14, 1956, Sunday Theatre Section, p. 1.

control of the arts is invariably seized by the ruling clique, and made to serve the purpose of the state. The clearest recent example of this has been in Soviet China where, during the past ten years, there has been a master plan for reshaping every aspect of artistic expression so that it will serve most effectively as a tool of education and propaganda for the new Communist state. In the words of Mao Tsetung, the artist is simply "part of our revolutionary machinery . . . a weapon with which to unite and educate our people, to attack and destroy our enemy."

The possibility that art may be debased in this way underlies, of course, the objections of many Americans to any form of federal support for painting, music, or the theatre. That it need not be so, that art may be aided without being subverted, has been clearly demonstrated in a number of other democratic nations, where there has been consistent and generous support without any attempt to manipulate it for partisan reasons.

If we are to be genuinely concerned about the nature of the forces that govern the bulk of artistic expression in our land, we should look elsewhere—at the controls that actually exist. For it is obvious that the mass media of communication, particularly the vast radio and television networks which feed our population endless rations of drama, music, and other forms of entertainment, are themselves directly controlled by commercial sponsors and advertising agencies.

This stranglehold over the most potent (because they are in the home and they are free) forms of what Gilbert Seldes calls the "public arts," has been bulwarked by such network practices as "option-time" and "must-buy" provisions

¹¹ Peggy Durdin, "Red China Revealed in Her Art," New York Times, January 5, 1958, Sunday Magazine, p. 59.

which have served to restrict competition and independent selection of nonnetwork productions.¹²

As a consequence of this control of the airwaves by commercial sponsors whose sole concern is to reach the largest possible audience per dollar spent (a perfectly valid concern from their point of view), television programming today consists largely of old Westerns, vacuous domestic comedies, grunt-and-groan wrestling, insipid parlor games and quizzes whose fascination, for the most part, is based on their fabulous cash prizes. All of these are accurately aimed at a projected audience somewhat below the supposed average twelve-year-old mind. True, there have been a number of courageous and stimulating television ventures, "Omnibus," for one, but these serve chiefly to illustrate what might be if creative producers, writers, actors, and musicians were given a free hand in the medium.

There is no intent here to say that all popular entertainment should be at the highbrow level. This would be snobbery; we must recognize that, even as we have socioeconomic classes, we have taste classes.

The real question is, Must such an overwhelming proportion of this tremendously influential medium continue to be devoted to near-trash? If so, and "pay-television" appears to offer only the most tentative of possible solutions, what major stimulus lies ahead for the arts in America?

To some, this may appear to be an unnecessary question. Why do we need such a stimulus at all? The answer lies in the nature of our society—the very technological society that Counts describes.

As an example, take music. Several decades ago orchestras and bands flourished

¹² "Monopoly and Monotony," The New Republic, September 16, 1957, p. 5.

in cities and towns large and small all over the country. Today, with radio and television, and with juke-boxes blaring in taverns and diners, only a comparatively small number of professional musicians are doing well, and the vast majority are barely eking out an existence. Even the regularly employed orchestra member in the large symphonies makes comparatively little, and must add to his salary by teaching music.

In a more prosaic form of entertainment-sports-the widespread broadcasting of major league baseball games and boxing events has hurt the minor league severely and has virtually wiped out the small neighborhood boxing club. In the area of theatre, true, a considerable number of actors, technicians, and directors find employment through television, but think how many more would be at work if they were playing before live audiences all around the country. The serious writer, the composer, the painter, all of these find it almost impossible today to find a real audience, and to rely on their art for a satisfactory livelihood. Without teaching fellowships, grants-in-aid, frankly commercial tasks (which inevitably detract from their creative efforts) it would be almost impossible for them to continue their work.

Perhaps this is inevitable. But is it the kind of atmosphere in which we can honestly expect the arts to flourish, to express the best in America, to provide us with cultural ambassadors of high quality abroad, and to enrich our lives at home?

Surely not. And yet, if we value art, we must recognize that it is expensive, particularly when it involves large group enterprises. A number of the major opera and ballet companies and civic theatres in our country today, even if they sell every seat for every performance, cannot cover their expenses. The mere fact that we

have a considerable number of excellent orchestras, civic theatres, and dance and opera organizations is a testament to the creative will of artists and lay personnel in these fields, and to the willingness of many Americans to give privately to support major forms of art expression.

But when there is a deficit each year, and when the wolf is constantly at the door (if the public does not come through with contributions or the city council does not vote those badly needed few thousand dollars), how can music or theatre organizations experiment with or commission new works, train new talent,

or expand professionally?

John Martin has compared the plight of American ballet companies, "perpetually on the verge of financial collapse and dissolution," with the situation of the Sadler's Wells Ballet. Under the sponsorship of the British Arts Council, this superb dance company has enjoyed an adequate and completely nonpolitical government subsidy, a permanent home, a permanent organization, and an atmosphere of respect and security in which to create and to grow.¹³

There are numerous examples of how other nations—far less wealthy than the United States—have supported their arts.

Recently Australia conducted a huge national lottery to finance an opera house in Sydney. A year ago the Canadian Parliament established a council for the arts and endowed it with \$50,000,000. Our own financial starvation of the arts compares dramatically with France's annual grant of approximately \$4,500,000 to the Paris Opéra, the Opéra Comique, the Théâtre Français and the Odéon.

Many single towns in Germany spend more on music than the United States government does. Denmark appropriates

\$750,000 annually to its Royal Theatre in Copenhagen, and Sweden's Opera, State Theatre and Lilla Scena, an experimental adjunct, receive annual subsidies provided by a national lottery. 14 Recently the Netherlands established a scheme for national assistance to fine artists by purchase of their works, to be regulated by advisory committees of recognized artists and art authorities.

Why have we Americans not done the same? The answer, as suggested before, lies in our failure, as citizens and legislators, to recognize the importance of art in our own society and in international exchange. During the past year, however, there has been a vigorous display of legislative action aimed at federal support of the arts. These bills, designed to establish a Federal Advisory Commission on the Arts and the United States Arts Foundation, have received a considerable amount of enthusiastic support from educators, artists, and private citizens.

For those teachers in our schools and colleges who are concerned about this situation it would seem that there is a desirable course of action.

First, at the same time that we support logical and urgently needed programs of expansion of scientific education in this country, let us do everything possible to make sure that education for the arts in our schools and colleges is nurtured and upgraded. Only in this way can we build public appreciation and enthusiasm for these forms of creative endeavor of which many Americans are virtually ignorant.

Second, if they are concerned about the arts in public life, educators on every level should throw their weight behind Congressional efforts, on a non-partisan basis, to lend financial assistance and the prestige of national support for the arts.

¹³ John Martin, New York Times, October 4, 1953, Sunday Theatre Section.

¹⁴ Marc Connelly, New York Times, August 5, 1957, Sunday Theatre Section, page 1.

Elementary Foreign Language by Television*

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QUITE modest curriculum project of the Denver (Colorado) Public Schools has turned up many interesting and unexpected implications. The project itself was very simple. It consisted of a series of lessons in French for boys and girls in the fourth, fifth, and sixth grades every Tuesday and Thursday evening from seven-thirty to eight o'clock over KRMA-TV, Channel 6, "Educational Television for Denver," for two consecutive periods of nine weeks each.

This was open-circuit telecasting, meaning that anyone who has a television set (85.9 per cent of Denver's population) and an inclination to study French, might join the "class." The television teacher made no particular point of the fact that she was teaching chiefly for children in intermediate grades, but the content of the lessons, the materials used in the teaching, and the teaching procedures were all geared to this age level, and were all checked in advance by the intermediate grades supervisor.

It is interesting to consider what might be called enrollment figures. A study

education programs. Français, Pour Vous was in a sense an experiment. There had been a growing demand for foreign language instruction in the elementary grades, particularly from those working in the field of education for the gifted. Since it would be difficult to find time for another course in an already full elementary school schedule, television presentation appeared to be a practical way of meeting this demand, if the subject could be taught ef-

fectively through this medium. Another

* Mr. Jones was a member of the NEA Conference on the Academically Talented, held in February 1958. He is the author of several novels for teenagers, and a member and past president of the Colorado Authors League.

guide for the course was purchased from Station KRMA by nearly 2,200 adults. Each pupil in the fourth, fifth, and sixth grades of the Denver Public Schools who said he would view the programs was furnished a set of lesson sheets containing the word lists and similar materials. When the series started, nearly nine thousand youngsters declared their intention of learning French. After the first nine weeks, when a new set of lesson sheets was needed, somewhat fewer than five thousand pupils requested them. It seems, therefore, that relatively independent study of this kind is not for everyone. Yet in fairness to the younger generation it should be said that this proportion of dropouts is considerably smaller than the proportion usual in adult

possibility suggested itself: that a foreign language might be learned in the home setting, where one's native tongue is first learned as a part of family life. So, in launching *Français*, *Pour Vous*, we sought to find out:

- 1. Can children in the intermediate grades learn a foreign language taught by television?
- 2. Can learning a foreign language be accomplished in a home setting?

In order to answer these two questions it seemed essential to give TV pupils a test that would indicate how much they had learned.

We found very early in the project that no tests in foreign language for nine-, ten-, and eleven-year-olds seem to be available from publishers or from other school systems. Therefore, we have had to build our own examinations.

To do this the planning committee (parents and teachers) selected an examining committee of five expert teachers of French from Denver's secondary schools. The director of Evaluation and Guidance provided them with technical assistance in test construction. There was one conspicuous advantage to this procedure: it was possible to gear the tests directly to the oral-aural method of instruction, which authorities in language teaching, including the teacher for this series, advise is the proper method at the intermediate grade level. There was another advantage: the content of the tests could and did correspond directly with the content of the lessons.

The specific disadvantage was that we had no statistical norms by which to judge the pupils' learning. However, our committee of experienced teachers agreed that a youngster who could respond correctly to about half the items in the test was doing all right.

The committee of five administered the tests, which were given at three different intervals to a sampling of fourth, fifth-, and sixth-grade pupils who were following the TV series. They were tested individually for proficiency in:

written French spoken French pronunciation functional vocabulary cultural understanding.

In the preliminary examination, the pupil was queried as to whether he could now speak, read, or understand French; asked questions about French history and culture; and tested for ability to understand some French sentences, words, and expressions which the teacher read to him. He was also asked to write a sentence in French. As expected, very few of the youngsters tested had any background at all in French.

A mid-term examination was given after the first eighteen lessons to measure aural (understanding) and written proficiency attained up to that time. The teacher read a series of French expressions for which the children were supposed to find the equivalent in a written list of English expressions. They were also given a series of pictures and a list of descriptive French words to match. Finally, the pupils were asked to write in French the cardinal numbers from one to twenty, and the French words for six basic colors.

The final examination, given at the end of the course, was more difficult and covered more territory. It measured both oral and aural proficiency, as well as written. Again the teacher read aloud in French—full sentences, more involved than those on previous tests—and the pupils were asked to match these statements with a list of sentences in English. The

test for matching a series of French words with pictures was repeated, and the pupils were asked to write the names of parts of the body in French, on a diagram. In the oral part of the final examination, the teacher asked each child five questions in French to which he was to respond in French. He was also given some instructions in French to carry out. On both of these phases of the test he was rated individually by the instructor according to an excellent-good-fair-poor scale. As a final part of his written work, the pupil was asked to translate into written French some simple English sentences, and to answer some questions on French history and culture.

Results of the preliminary test, as stated earlier, revealed that the knowledge of French acquired by the pupils tested was negligible. Of 210 tested, only 6 had any comprehension of the meaning of a common French phrase when they heard it read, and only 9, when they saw it written. Forty-eight of the 210 pupils had some knowledge of the country of France, and 75 could pronounce at least one commonly seen French word like cliché, menu, bon voyage, à la carte. The results of the preliminary test indicated that in subsequent tests we would be measuring only what had been learned from the televised instruction.

At mid-term 193 pupils were tested. Their median score on the written section was 27 out of a possible 46 points. Seven pupils made a perfect score; forty-four scored between 40 and 45; thirty-four between 30 and 39; forty-nine between 20 and 29; forty-six between 10 and 19; and thirteen between 3 and 9. In the aural phase of the testing—that is, ability to understand spoken French and translate it into English—a score of 10 was possible. Thirty-six pupils attained the score of 10, eight scored between 6

and 9, seventy-one between 1 and 5, and five made a score of 0.

In the final test, 58 points were possible on the written section. Of the 171 pupils tested, one scored between 50 and 58; twenty-one scored between 40 and 49; thirty-two between 30 and 39; fifty-one between 20 and 29; fifty-five between 10 and 19; and eleven pupils made a score between o and 9. The median score for the final test—a test stepped up appreciably in difficulty over previous testswas 22. In the aural phase of the final test (the ability to understand spoken French and to respond), out of a possible score of 10, the median score was 6. Four pupils made a score of 10, ninety-eight scored between 6 and 9, sixty-seven scored between 1 and 5, and two pupils scored o.

As indicated earlier, in devising the tests for this course and evaluating the results, it was necessary to work without any base of comparison; so, as an experiment, the testing lacks statistical verification. Since French is not taught in the regular curriculum of the fourth, fifth, and sixth grades, there are no control groups; no comparisons are to be drawn between youngsters studying French by traditional methods and those studying through the medium of television. Similarly, no comparisons may be drawn between children in Denver and children in other cities, until schools in other cities launch similar experiments and data may be pooled.

From our own testing, however, we think we have found the answers to our original questions. Fourth-, fifth-, and sixth-grade children can be taught French, and they can be taught it through television. Note that in the results cited above at least half the children had mastered from 50 to 70 per cent of the material. Some had learned a great deal.

Since we had started with the assumption that 50 per cent mastery would be a satisfactory performance, we were not at all disappointed.

As to whether foreign language can be taught children in a home setting, the answer we have found is largely negative. From reasons given for dropouts and from recommendations of people connected with the program, we conclude that a foreign-language course must be school-connected to be effective. Poorest scores were made by children in schools where no follow-up periods were given by a classroom teacher. One of the reasons for dropouts was that parents want the television set for their own favorite programs and not for their child's lessons in the evening.

Television has at least one advantage all its own in the teaching of language: pupils can "see" how a word is pronounced. After the teacher has given a word and repeated it a time or two, the camera goes in for a very tight close-up. This means that the whole screen is occupied by the lips and throat of the teacher and, as she pronounces the word several times more, viewers get a better idea of how the word is pronounced than is possible in a classroom where most pupils are at some distance from the teacher.

Our television teacher for Francais, Pour Vous had unusual qualifications: she had received her Bachelor of Arts degree from the University of Paris, had lived in France, and had had previous experience in telecasting. The point is that instruction by a person of such excellent background, a master teacher, can be made available by television—but not number of pupils. Thus, another of the unique potentials of educational television has been verified the surface of th

has been verified through this experience.

A full report of the findings of the

Denver testing survey has been prepared for the National Educational Radio and Television Center at Ann Arbor, Michigan, and it is hoped that some of the materials may merit publication. The evaluation program described was financed with the assistance of a grant from the Center. In particular, we hope that other school systems may have a chance to examine our tests and give us assistance in establishing norms.

Meanwhile, we note non-statistical values from Français, Pour Vous. Reports have come that the work of pupils in English classes has improved noticeably since they started trying to put their thoughts into French. This means, according to our hunch, that the youngsters have gained new insight into language structure. French clubs, formerly found in senior high schools only, have sprung up in elementary and junior high schools throughout the city. French conversation has added new zest to the school day. Not only have pupils become aware of French as a living language, but their interest in France as a country has been stimulated, with resulting benefit in the area of the social studies. We anticipate that foreign-language instruction at the elementary school level will enable children to become better language students later, with better understanding of the culture of another country. We also consider the study of a foreign language a necessary enrichment of the curriculum for able and exceptional students, and one which we intend to explore further.

The data that have been assembled from Francais, Pour Vous, plus the reactions and recommendations that have come as a result of the course, have prompted us to make plans for more foreign-language study on television for next year. Whether the instruction will be in French or Spanish or a combination

of the two is yet to be determined. Our experience thus far has led us to plan the following changes:

1. The instruction will be given during the school day rather than during the evening, and there will be preparation and follow-up work by a classroom teacher for each lesson. We intend to telecast the lesson between 1:00 and 1:15 P.M. This is a time segment not so much needed for lunch hour these days, with more and more children eating in elementary school cafeterias, and more and more mothers transporting those who still go home for lunch. It is also a time when teachers are already on duty. Another fifteen-minute period will be allotted some time during the school day for discussion of the previous lesson and preparation for the coming one. This time segment will be worked out by individual schools.

2. The television language course will be on an elective basis. It will be offered only to interested pupils whose parents want them to study a foreign language and are willing to work out the necessary time arrangements for it.

3. The content, methods, and materials used will be definitely for fourth-, fifth-, and sixth-grade youngsters, with no effort to encompass the adult viewer.

These ideas have evolved from our experience to date. The fact that we plan to continue the teaching of foreign language through television is in itself a kind of evidence to add to that already assembled from our evaluation of *Français*, *Pour Vous*.

Idea and Practice of a Fifth-Year Requirement for Teacher Certification

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PREFATORY NOTE

This is the second and concluding article drawn, as explained in the April 1958 issue of The Record, from Dr. von Schlichten's Ed.D. Project report at Teachers College. As before, I have acted as editor without trying to make the author's data current, since I feel confident that no substantial changes in practice have occurred.

Mention ought to be made, however, of the increased discussion and institutional experimentation which have taken place since Dr. von Schlichten concluded his own study (in 1956) with respect to five-year and fifth-year programs for the preparation of teachers. These have been especially encouraged and supported by the Fund for the Advancement of Education. It is instructive to observe to what extent many—though certainly not all—of the ideas unfessional educators years ago.

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from examination and personal judgments of competence to credits received for successful completion of formal training, the matter of the quantity of its, and courses, has emerged as an increasingly significant issue. In a previous

discussion* the genesis and proliferation of formal teacher preparation—the development of the one-year normal school into the four-year teachers college and the entrance into the arena of teacher preparation of the colleges and universities—were noted. Also noted were the growing definition of and differentiation between elementary and secondary certification, together with the emergence of the requirement of the bachelor's degree, representing four years of preparation, as prerequisite to secondary teaching.

The question finally presented itself: Are four years of formal education adequate for the proper preparation of teachers? In some quarters this led to the advocacy in theory, and the requirement in practice, of teacher preparation beyond four years. A consideration of that movement constitutes the subject matter of the present article.

When Cubberley was making his recommendation in 1906 that high school certification be based on "evidence of having completed a full college course," he offered this additional fact:

California has gone even farther. The number of properly certificated highschool teachers was so in excess of demand

* See article by von Schlichten in April 1958 Teachers College Record. that in 1905 the requirements were raised to include one year of graduate study.1

Another significant action occurred in 1905. In that year the National Society for the Scientific Study of Education addressed itself to the question of the preparation of secondary teachers. In answer to the query, What constitutes the ideal secondary teacher? several respondents suggested the desirability of having acquired a master's degree, "some graduate study," or possibly some travel or study abroad beyond the Bachelor's degree.2 Dexter, one of the authors of the yearbook which the Society published, arrived at the following conclusion after comparing American with Prussian preparation of secondary teachers:

It is the opinion of the writer that our high-school system can never fully perform its functions nor its teachers attain the status of professional respectability which should be theirs, until they have invested at least four years' time in the academic side of college work, with at least one year's graduate work directed largely to a theoretical and practical study of school problems. This investment of time can only gradually be brought about, but I am convinced that the not very distant future will see it.³

From the actions which have just been chronicled we may conclude that both the practice and the public advocacy of the idea of five years of teacher preparation date from at least 1905; that both theory and practice were initially limited to secondary teachers; and that from the

¹ Ellwood P. Cubberley, "The Certification of Teachers" The Fifth Yearbook of the National Society for the Scientific Study of Education, Part II (Chicago: The University of Chicago Press, 1906), p. 82.

² The Fourth Yearbook of the National Society for the Scientific Study of Education, Part I (Chicago, University of Chicago Press,

1905), Ch. II, pp. 27-48.

3 Ibid., p. 62.

outset the proponents of preparation made concrete proposals as to how that time should be spent and what the training ought to be. This latter point has been characteristic of virtually all proposals for teacher preparation beyond the bachelor's degree down to the present time.

Despite Dexter's optimism, it was not until the 1930's—that is, until there was again a general surplus of supply over demand—that the idea of a fifth year was to receive widespread consideration.

In 1932, for example, Brubacher took this position:

The time is at hand for the next step in teacher preparation. It has even now been taken in California and in the City of Cincinnati. Secondary-school and college teachers should be required to devote a fifth or graduate year to cadet teaching. The four-year liberal arts program, administered with a sound professional spirit . . . will give the desired educational background. The fifth year should be to the teacher what the internship is to the physician.4

At the same time, Hill⁵ was arguing that five years of preparation for secondary teachers were now both necessary and, in the light of current oversupply, feasible. He advocated a fifth year consisting of aproximately one-third of each of the following components: academic work, intensive study of education, and additional experience in the laboratory school. This, he said, should follow four undergraduate years which should have included twelve hours of professional training, starting in the junior year.

After comparing American with Euro-

⁴ A. R. Brubacher, "The Teacher-Training Program Re-examined," Journal of Higher Education, 3:436, November, 1932.

⁵ Clyde M. Hill, "A Five-Year Program for the Professional Preparation of Secondary School Teachers," Educational Administration and Supervision, 18:429-33, September, 1932. pean preparation of secondary teachers, Benjamin, 6 in 1933, advocated five years and offered six "tentative principles around which a coherent [five-year] program may be built," namely,

1. The five-year curriculum should provide a broader educational program than does the present four-year program;

2. It should *not* include a year of graduate training in the sense of increased specialization:

3. Professional education should be no greater in the five-year program than in the present four:

4. The professional education courses should be integrated and improved for the purposes of the five-year curriculum;

5. The five-year program should provide for increased contact with actual school situations;

6. The five-year curriculum should be evaluated as objectively as possible in terms of the quality of its present product.

An interesting rationale for five years of preparation for all teachers was offered by Meyers in 1934.7 If, asked Meyers, education for social reconstruction is what is needed, then what kinds of teachers will be required? The needed teachers, he claimed, must first of all be carefully selected, and must then be given five years of education—this to consist of two years of broad general education followed by three years of professional education in which the general professional element was stressed. It should be noted that this is the first reference to the desirability of having elementary as well as secondary teachers receive five years of preparation.

It is patent that the five-year certifica-

tion idea early became identified as the good, the necessary, the desirable training of teachers. Because of its close identification with teacher education, therefore, the balance of the present discussion will be conducted largely in terms of the positions taken by various commissions, groups, committees, learned organizations, and the like which have from time to time addressed themselves to the question of the desirable preparation of teachers.

The first findings to be cited are those of the National Survey of the Education of Teachers in 1935. The third volumes of that six-volume survey makes numerous specific recommendations with reference to the education of teachers, with this proviso, however: "These proposals and recommendations cannot be defended in terms of noncontrovertible data of the survey nor upon a final word from research." 9 Nevertheless, the authors propose that the pre-service preparation of elementary teachers be increased to four years, and that four years be "the minimum preparation for the lowest class of secondary school in every state that has not yet [1933] made it so," and that

years of preparation for the first or highest class of secondary-school certificate in most States is recommended; at least an early beginning in preparing such teachers should be made.¹⁰

A teachers' curriculum should be an integrated curriculum, 11 says the Commission, with education courses intro-

⁸ Earle U. Rugg and others, "Teacher Education Curricula." Vol. III of National Survey of the Education of Teachers. United States Office of Education Bulletin 1933, No. 10 (Washington: Government Printing Office, 1935).

⁹ *Ibid.*, p. 347. 10 *Ibid.*, p. 352.

¹¹ Ibid., p. 353.

⁶ Harold Benjamin, "The Five-Year Curriculum for Prospective Secondary Teachers," Educational Administration and Supervision, 19:

²⁻⁴, January, 1933.

⁷ Alonzo Meyers, "Education of Teachers for the Schools of Tomorrow," Journal of Educational Sociology, 7:569-70, May, 1934.

duced not later than the junior year.12 Further, any fifth-year program should be flexible enough to permit numerous possible options to be exercised.13 These were relatively modest and guarded proposals which did not suggest five years of preparation prior to initial employment, but rather only as a condition for attaining the highest class of secondary certificate "in most States."

Somewhat more specific is the recommendation of the Regents Inquiry of 1938 in respect to teachers in New York

The point has now been reached where the . . . urgency for breadth of education on the part of teachers [makes] it desirable for New York State to adopt . . . a five year program of courses for secondary school teachers.14

The Inquiry makes it clear that it is recommending five years as a pre-service requirement for secondary teachers.15 Regarding the nature of such a program it is, however, much less definite. "To insist dogmatically on a rigid formula at the present time and in the present state of experience with respect to the best ways of preparing teachers," it says, "seems to be a mistake." 16

An interesting and brilliantly presented set of general recommendations emerged in 1942 out of the deliberations of a joint committee of the faculty of Harvard College and the Graduate School of Education, which had initially addressed itself to the problem of the proper preparation of secondary English teachers at

Harvard. The committee concluded that secondary teachers, generally, needed five years of initial preparation, and that the last two undergraduate years and the present graduate year ought to be thought of as a single three-year preparatory program. This, they realized, implied that the teacher candidate would have to think of his future profession prior to receiving his baccalaureate. But they asked,

Why should the delicate and complex profession of teaching be something that can be entered on hit or miss merely because the candidate decides, after graduation from college, that he would like to teach?17

Further, in examining the Master of Arts in Teaching program then in effect at Harvard, the committee arrived at this conclusion concerning what it felt to be an initial fallacy in the whole scheme:

. . . the fallacy, namely, that training in education is something that can be applied from above at the end of another program; that it is training which in a fifth year can miraculously be clapped on top of a fouryear Bachelor of Arts degree without reference to the vocation of teaching. The result is not fusion, but confusion. Skilled teachers are not thus made out of raw material.18

Any attempt to delineate the five-year idea must certainly pay particular attention to the findings of the Commission on Teacher Education, whose efforts on behalf of the improvement of teacher education were most certainly unique, and quite possibly the most widespread and significant in the history of teacher preparation in our country. The Commission's point of view was clear: "Teachers adequate for our times cannot be prepared

18 Ibid., p. 124.

¹² Ibid., p. 359. 13 Ibid., p. 363.

¹⁴ Charles H. Judd, Preparation of School Personnel, A Study of the Regents Inquiry into the Character and Cost of Public Education in the State of New York (New York: The McGraw-Hill Book Company, Inc., 1938),

¹⁵ Ibid., p. 84. 16 Ibid., p. 88.

¹⁷ Report of a Joint Committee of the Faculty of Harvard College and the Graduate School of Education, The Training of Secondary Teachers (Cambridge: Harvard University Press, 1942), p. 125.

in less than four collegiate years," 19 and further,

The Commission sympathizes with the tendency toward the establishment of fiveyear programs of teacher preparation and considers them to be as justifiable in the case of elementary as of high school teachers.20

That justification, says the Commission, lies in the twin reasons of the social significance of the teachers' function and of the complexity of understanding and skill required. The ideal training program, it holds, "would be a five-year integrated program in which the professional and other elements were continuously intermingled." 21 It warns against relegating all professional elements to the fifth year, recommends that in all cases professional training be started no later than the third college year, and holds that any increased term of training "requires increased provision of opportunities for direct and responsible experience with children, schools, and communities." 22 Finally, the Commission makes clear that it posits no virtues in five years of preparation per se apart from improved selection and more effective programs.

From time to time various professional organizations and learned societies within the field of education address themselves to the question of the proper qualification and preparation of teachers. In considering the theme of the expanding role of education, the American Association of School Administrators in 1948 dealt with the question of personnel to insure an adequate program.23 This association,

too, thinks of adequate teachers in terms of competencies,24 and after paying its respects to the Commission on Teacher Education's recommendations for improving the pre-service education of teachers, states the following as its posi-

The minimum educational qualification for any teacher (elementary or secondary) should be the bachelor's degree for initial or provisional certification, with an inservice education requirement of additional work toward completion of the master's degree for permanent or standard certification. . . . However, appraisal procedures which will more adequately describe the competencies of teachers . . . must also be developed.25

It will be noted that these administrators, following the lead of the Commission on Teacher Education, do not differentiate between elementary and secondary teachers as to the length of either their initial or their ultimate preparation for teaching. Further, it is important to observe, they favor the acquisition of a fifth year of preparation for all teachers on an in-service rather than a pre-service basis. And finally, they are concerned with the acquisition of needed competencies by all teachers.

In its 1953 yearbook the National Society for the Study of Education also deals with teacher preparation as one aspect of the problem of adapting the secondary school to the needs of youth.26

¹⁹ The Improvement of Teacher Education, A Final Report by the Commission on Teacher Education (Washington: American Council on Education, 1946), p. 113.

²⁰ Ibid., p. 104.

²¹ Ibid., p. 105.

²² lbid., p. 106.

^{23 &}quot;Personnel for an Adequate Program,"

The Expanding Role of Education. Twentysixth Yearbook, American Association of School Administrators (Washington: American Association of School Administrators, 1948),

²⁴ Ibid., pp. 231-32.

²⁵ Ibid., p. 236. 26 J. G. Umstattd, "Education of Teachers to Meet the Needs of Youth," Adapting the Secondary-School Program to the Needs of Youth. Fifty-second Yearbook, Part I, National Society for the Study of Education (Chicago: University of Chicago Press, 1953), Ch. XV.

For the success of the kind of high school program envisaged by the authors of that yearbook, in view of the learning and skills demanded of a teacher in such a school, "It is [very] doubtful," says the Yearbook, "that the teacher can become prepared for this job in four years." ²⁷ It calls for five years of preparation, a five-year program organized as a unified series of general and professional experiences. "Simply to tack on a fifth year of work unarticulated with the previous four years will not do the job." ²⁸

One type of fifth-year work which the Yearbook strongly recommends is the internship. This is not only desirable, but also practically necessary under present

circumstances.

The failure of public schools to develop superior programs of in-service education for beginning teachers suggests the need for a period of internship under the guidance of the college to facilitate the induction of its members into the profession.²⁹

Still another source of opinion concerning the desirable length of preparation of teachers, and hence of desirable certification requirements, is to be found in the pronouncements of those concerned with the several subject matter fields. The position of a Harvard committee on secondary English teachers already has been discussed. Several more positions will now be presented.

In 1949, Layton addressed himself to an analysis of certification requirements for mathematics teachers.³⁰ After tabulating the data concerning the subject matter and professional course requirements then in effect for certification in mathematics teaching, he turned to two groups of experts, state certification officers and mathematics specialists, for judgments on a number of relevant questions raised by his analysis.

According to Layton's data, the state certification officers consistently favored higher certification requirements than did the mathematics specialists. However, both groups overwhelmingly favored only a bachelor's degree for elementary teachers, and only a minority of both groups favored requiring a master's degree for secondary mathematics teachers. It is noteworthy that a larger minority of certification officers than mathematics specialists took this position. For both groups, however, the concern was for the nature of the teacher's preparation rather than for a master's degree or a fifth year per se.31

In the summer of 1953 a month-long conference on science teaching in the secondary schools, called by President Conant and supported by the Carnegie Corporation, was held at Harvard University.32 Among many other things the conference reviewed some twenty reports published during the previous two decades, and found concurrence on seven general recommendations concerning the adequate preparation of science teachers. "These," said the conference, "might well be considered by those attempting new steps in the development of teacher certification requirements and teacher training programs." 33 Examination of those seven recommendations reveals that they call for competence in the fields to

²⁷ Ibid., p. 288.

²⁸ Loc. cit. 29 Loc. cit.

³⁰ William Isaac Layton, An Analysis of Certification Requirements for Teachers of Mathematics (Nashville, Tenn.: George Peabody College for Teachers, 1949), 215 pp.

³¹ *lbid.*, pp. 184-88.

³² Fletcher Watson and others, Critical Years Ahead in Science Teaching (Cambridge: Harvard University Printing Office, 1953), 48 pp. ³³ Ibid., p. 37.

be taught and in professional education, including realistic experiences in school and community, together with broad general education. There is agreement, too, that "the five-year college training program for teachers [should] become a mandatory minimum." ³⁴

When the conference presents its own thinking over five years, as it does immediately on the heels of the seven recommendations just referred to, a certain vagueness intrudes itself. However, one gathers finally that the conference favors five years of preparation, but not necessarily as a condition for entrance into the field, and that it recognizes certain practical problems but offers no remedies.

Concluding the present phase of our inquiry, the desirable preparation of teachers in the several subject matter areas, we turn finally to the field of the teaching of the social studies. In its twenty-third yearbook the National Council for the Social Studies deals specifically with the preparation of the social studies teacher, but raises the question of the adequacy of the status quo only to this extent: "Is the present college preparation adequate for providing the core curriculum teachers that the public schools want?" 35

Still another source of opinion on the question of five years of preparation is to be found in the judgments of some two hundred "persons interested in teacher training," as gathered in a questionnaire study conducted by McGrath.³⁶ A num-

³⁴ *lbid.*, p. 38.

³⁵ Jack Allen (ed.), "Preparation of Secondary School Social Studies Teachers," *The Yearbook*, National Council for the Social Studies (Washington: The National Education Association, 1952), p. 72

Association, 1952), p. 73.

36 G. D. McGrath, "Some Results from a Teacher-Education Questionnaire," Educational Research Bulletin, 29:14-29, January, 1950.

ber of findings pertinent to our inquiry follow: 37

Question Number		Yes	No	Not Sure
4	Do you think it is possible to plan pre-service programs which will adequately train and educate teachers in four academic years of time?		141	4
26	Do you favor a five- year minimum of pre- service training before teachers are permitted to teach?		25	4

Respondents were asked to score a series of statements on a 1 to 5 scale representing a range from strong disagreement to strong agreement. One statement and its composite rating are relevant.³⁸

B 26 A year of internship with small remuneration should be a part of the pre-service training of teachers.

The points of view of respondents—persons involved in the actual preparation of teachers—are clear. Those persons do not believe it possible to devise adequate pre-service programs limited to four years for either elementary or secondary teachers. They overwhelmingly favor five years of pre-service preparation, and they equally strongly favor a year of internship with some salary.

A recent position, and one to which any study such as the present one must surely pay attention, is that of the Commission on Teacher Education and Professional Standards of the National Education Association. That Commission clearly stated its views on years of preparation for certification when it recom-

37 Ibid., pp. 14-17. 38 Ibid., p. 28.

mended to the Association's National Convention of 1953 that

The profession support vigorously the principle of requiring minimum professional preparation of the baccalaureate degree for initial certification and teaching service; and that the fifth year of preparation, completed in connection with actual teaching experience, be considered as necessary for the full professional preparation of teachers at all levels.³⁹

The present investigation of positions with respect to a five-year requirement concludes with the presentation of a recent point of view expressed by one individual, Hutson, 40 who writes what he says may be regarded as an open letter to the members of the National Society of College Teachers of Education. Basing his thinking on what he regards as the fact that the five-year requirement here and that "the nature of the fif is not defined by the state or district," Hutson proceeds to answer a critical question,

Do teachers perform at a higher level with a master's degree than with a bachelor's, and if so, to what extent? No one knows. No one has tried to find out. But in the logic of the situation there is much cause for skepticism....⁴¹

He then proceeds to indict the efficiency of present fifth-year training on three counts, namely,

First, there is seldom any co-ordination among the teachers of a given school in fifth-year programs of self-improvement;

Second, . . . present fifth-year education is illogical because of the remoteness of

³⁹ National Education Association, Addresses and Proceedings, (Washington, D. C.: National Education Association, 1953), p. 318. Italics not in original.

40. P. W. Hutson, "A Proposed Program for the Fifth Year in Teacher Education," School and Society, August 7, 1954, pp. 37-40.

41 Ibid., p. 38.

connection between tutelage and practice; Third, the present program is illogical in that it lacks relation to the beginning employment of the teacher.⁴²

By way of constructive suggestion Hutson does not, somewhat surprisingly, first call for an investigation of the relative performances of teachers with four and five years of preparation, but launches immediately into a presentation and defense of what he calls a new program—a fifth-year program organized around a teaching practicum. Students would be hired as half-time teachers in selected schools, concurrently carrying certain related course work at a university, all of this leading to a practitioner's rather than an academic master's degree.

Summary

This brings to a close the presentation the thinking concerning the idea of equiring five years of preparation for certification. The following conclusions appear to be warranted:

1. Both the practice and the idea of requiring five years of preparation for certification may be traced to the start

of the present century.

2. Over the years opinions regarding the idea of five years of preparation have been expressed by individuals who have a legitimate concern in the problem; by numerous professional societies representing various groups, such as the profession as a whole, school administrators and subject-matter specialists; by committees appointed for the express purpose of considering the preparation of one or another category of teachers; by two commissions charged with dealing with teacher preparation on a national basis; by groups of specialists in various fields—subject-matter specialists, certification of-

⁴² Ibid., pp. 38-39.

ficers, persons concerned with teacher training—and by the professional organization most singularly concerned with certification standards, the Commission on Teacher Education and Professional Standards.

While there is by no means unanimity on the ideas concerning five years of preparation, there is no body of evidence or polemic in the literature which argues actively against the five-year idea on positive grounds. There exists, to be sure, a considerable body of articulate opinion critical of teacher preparation. Lynd's Quackery in the Public Schools and portions of Bestor's Educational Wastelands may be cited.43 That body of opinion is critical not so much of the number of years of teacher preparation, however, as it is of its content. In fact, one can find considerable support in the present critical literature on teacher preparation for more preparation for teachers if only it were of the "right sort."

3. Initially five years of preparation were proposed for only secondary teachers. There is, however, a growing body of opinion which would not differentiate between elementary and secondary teachers, proposing five years for both. Certainly, there are no recommendations in the literature that five years of preparation be demanded of elementary but not of secondary teachers.

4. The dominant reason offered in justification of the proposals which have been made is that the needed skills, knowledge, and understanding now require five years for their acquisition or development. Sometimes this is made as an unsupported assertion, sometimes it is preceded by a more or less detailed analy-

Schools (Boston: Little, Brown and Co., 1950), lands (Urbana, Ill.: The University of Illinois Press, 1953), 195 pp.

sis of competencies, skills, and the like which the particular authority holds lead to the five-year conclusion. Other reasons offered at various times have been feasibility due to oversupply of teachers, and lack of proper in-service training programs. In no case, however, has evidence been adduced to indicate that teachers with five years of preparation have in fact been proved superior to those with less preparation.

5. With a few exceptions, sources of opinion on the length of training cited in the present investigation did propose, with varying degrees of specificity, the structure of the educational programs needed to fill the time span they favor.

From those proposals a number of generalizations can be drawn. First, all who mention the matter at all are explicit that a fifth year cannot simply be imposed upon four years of college studies. R9 e years of preparation need to cated within themselves and in relation to what follows. Second, the proper preparation of teachers (over any given number of years) must include among its components broad general education as a foundation, and specific subject-matter competence, knowledge of the child and of the community, professional education, and relevant direct experiences with children, schools, and communities. Third, graduated professional training and experience should start no later than the junior undergraduate year and should continue right up to initial full-time teaching. And finally, it is felt to be particularly imperative that firsthand experience in school and community continue during, and not be interrupted by, any fifth-year program. Those who advocate internship as the desirable fifth-year program would, of course, increase such experiences by the largest amount during that period.

6. Analysis of the data which have been presented reveals that opinions are mixed regarding whether five years of preparation should be required prior to initial entrance into full-time teaching or simply as a condition of full and final certification. Some of the authorities are unclear as to their exact positions. Some are explicit in urging that five years be required for initial certification. Others imply that position by the nature of the training programs which they advocate. Still others hold only that a fifth year should be required as a condition of receipt of the highest or full or final certification.

7. Finally, one gathers the general impression that those who argue for this or that number of years of preparation for one or another category of teachers according to this or that plan of organization are not concerned nearly so much with the mere acquisition of credits, degrees, or years of training as they are with the desire that somehow teachers be as well prepared as possible, in terms of competencies, for the jobs that need to be done. Length of training is not to be considered apart from the goals to be achieved and the means for achieving them.

THE FIVE-YEAR REQUIREMENT IN PRACTICE

When one examines actual state certification regulations in terms of their requiring more than four years of preparation for teaching, the resultant data are at first deceptively simple. It is revealed that no state requires more than four years for entrance into elementary teaching, and that in forty-four states no preparation beyond four years is required for entrance into secondary teaching. In the remaining four states and the District of Columbia there are, then, some addi-

tional academic requirements for initial entry into some phases of secondary teaching. Those requirements by states are: Arizona, 6 hours, for academic teachers only; California, 30 hours, for academic teachers only; New York, 30 hours, for academic teachers only; Washington, fifth year, for out-of-state teachers; and District of Columbia, master's degree for all except vocational high school teachers.⁴⁴

It should be noted that in three of these states the post-baccalaureate requirement does not apply to teachers of nonacademic subjects. In the District of Columbia it does so apply, but only in the case of teachers not assigned to vocational high schools. Even teachers of academic subjects so assigned need hold no more than the bachelor's degree. It should also be noted that in Arizona the number of hours of preparation called for is 6. While renewal requirements have the effect of building these up to 30 over the first five years of teaching, this does not distinguish Arizona from many other states, as will appear below. Washington's initial five-year requirement is limited to secondary teachers from out of state. The picture as a whole can scarcely be considered impressive, especially when it is recalled that California took the first step as far back as 1905.45 It must be added that no significant body of research has resulted from the five-years-of-initialpreparation requirement which provides evidence as to whether or not this requirement has produced better teachers.

The state minima which have just been examined are requirements for *entrance* into teaching only. However, further in-

tion Association, 1953), pp. 22-133.

45 The District of Columbia acted in 1933,
New York in 1943, and Washington in 1951.

⁴⁴ Data drawn from A Manual on Certification Requirements for School Personnel in the United States (Washington: National Education Association, 1952), PR 22-122

spection of certification regulations reveals that the several states also have periodic renewal requirements, or at least furnish opportunities to achieve higher level certificates, and that those additional specifications must or can be met by additional study. In view of this, it is pertinent to ask, How much education beyond four years must a teacher obtain in order to remain a teacher for life? Such an analysis of state certification data does not appear to have been made up to the present time. It will therefore be the task of the remainder of this discussion to present the results of such an analysis.

In order to compile these data it was necessary to make an assumption regarding the span of years to be covered by the term "for life." For the purposes of the calculations made in this study it has been assumed that a professional lifetime begins at age twenty-two and ends at age sixty-five, having covered forty-three years. The problem becomes, then, that of determining how much study beyond the bachelor's degree would, under regulations existing in 1953, be required in each of the several states if a teacher were to be permitted to remain in teaching throughout such a professional lifetime. The findings are summarized in four categories below.46

I. Study beyond four years REQUIRED to teach for life. Thirteen states require 30 or more hours of study in order to teach for life, making no distinction between elementary and secondary teachers. The range of required hours is from 30 in Mississippi, Rhode Island and Washington, to 48 in Delaware, North Caro-

ten, "A Study in Teacher Certification: The Story of the Five Year Requirement in New York State." Unpublished doctoral project report, Teachers College, Columbia University,

lina, and Florida, with New Hampshire, Maryland, Georgia, Arizona, Carolina, Utah and Vermont falling in between. Six additional political units require 30 hours or more, but on the secondary level only. In five of those-Kentucky, Ohio, West Virginia, Wyoming, and the District of Columbia-the requirement is for the master's degree, and in the sixth—California—for 30 hours of study. Finally, there are two special cases, Maine and New York, which require 48 hours or more on the secondary level, and also require some study beyond four years, but less than 30 hours, on the elementary level. In summary, then, it may be said that twenty-one states require a total of five or more years of study of their teachers-elementary or secondary or both-in order to teach for life, with a majority of those states making no distinction between teaching

Eight other states require some study beyond four years, though not to the extent of a full fifth year, the range being from 24 to only 6 hours. Five of those states—Iowa, Virginia, Michigan, New Mexico, and Pennsylvania, to name them in descending order of number of hours required—make no distinction between teaching levels, while the remaining three—Nebraska (18 hours), South Dakota (18), and Nevada (6-9)—have requirements for the secondary level only.

2. Study beyond four years ENCOURAGED by regulations. Still another way of examining the practice relating to five years of education for teaching is to analyze certification regulations in terms of the amount of study which they encourage but do not necessarily require. The stimulus for such additional study is promise of receipt of the highest certificate which the state offers. These certificates

cates, which are not essential for continuous teaching but which are presumed to give special prestige, bear such titles as Advanced Post-Graduate (Florida), Class A Professional (Alabama), and Advanced Professional (New Jersey). Fifteen states offer such inducements, one (Florida) calling for two full years of study beyond the bachelor's degree for both elementary and secondary teachers. Eight states-Alabama, Illinois, Indiana, New Jersey, Tennessee, Virginia, Idaho, and Iowarequire either a master's degree or 30 hours for the highest certificate at either level; three-Kentucky, West Virginia, and Wyoming-offer such an inducement on the same terms to elementary teachers (in all of these three, it will be recalled, secondary teachers must earn a master's degree if they are to continue teaching indefinitely); and one, Montana, to secondary teachers. One state, Nebraska, grants its highest certificate to elementary teachers after 14 hours of fifthyear work. (It requires 18 hours for secondary teachers to maintain their standing.) Finally, one, Kansas, encourages teachers on both levels by offering a highest certificate at the price of 6 to 8 hours originally and for each renewal.

3. Study beyond four years ACCEPTABLE AS AN ALTERNATIVE to teaching experience. In seven states, where certificates must be periodically renewed, such renewal is automatic in the case of teachers where service has been continuous, or relatively so. Alternatively, however, renewal will be granted on the basis of study beyond the basic four years. This situation obtains in Alabama, Arkansas, California, Minnesota, and Mississippi on both elementary and secondary levels, in Kentucky on the elementary, and in Oregon on the secondary level.

4. States with NO PROVISIONS relating to study beyond four years. We come finally to that residue of nine states which simply do not mention study beyond four years in any manner in their regulations governing teacher certification. Those states are Colorado, Connecticut, Louisiana, Massachusetts, Missouri, North Carolina, Oklahoma, Texas, and Wisconsin.

Summary

Our investigation of the practice of requiring five years of study for certification as a teacher has been conducted on two levels. First, the requirement of five years of study for entrance into teaching was examined. This was found to be a limited movement. Second, the requirements to teach for life were analyzed, with the results which have just been recapitulated. The practice of requiring five years of education for teaching is indeed widespread in the United States.

Furthermore, the evidence reveals that

there is considerable disparity between the idea of a fifth year of preparation as developed in the first part of the present article and the practices as revealed in the second part. The proponents of the idea of five years of preparation stress integration with the previous four years, a full five years before starting to teach, a fifth year internship, and the like. In actual practice the number of states mandating a fifth year of initial preparation is negligible. Rather, the pattern of certification requirements frequently is such that a teacher must continue to accrue advanced credits periodically (six credits for every five-year renewal period is a recurring example), in order to maintain the validity of his certificate.

The result is the phenomenon, peculiar to the field of education, of a large body of teachers taking courses during the

teaching year or during summer vacation periods, frequently at intervals of several years, and frequently, too, over a span of years which reaches to retirement—all of this in the interest of meeting certification requirements. The resultant collection of courses is not necessarily the homogeneous, coordinated program envisaged by

many advocates of five years of teacher preparation. This is not to argue the relative merits of five-year theory and five-year practice. It is merely to indicate that differences do exist between the two, differences which are understandable in part, at least, in terms of the imperatives placed on teachers by certification requirements.

CONCERNING AN ERROR IN THE MAY, 1958 ISSUE

William H. E. Johnson, author of the article entitled "Recent American Interest in Soviet Education," which appeared in the May 1958 issue of TEACHERS COLLEGE RECORD, wishes to point out that he erred

in designating Alexander G. Korol as merely the editor of the recent volume Soviet Education for Science and Technology. Mr. Korol is the author of this volume, and should have been so described in the article.



"Education and Philosophy." The Year Book of Education, 1957, edited by George Z. F. Bereday and Joseph A. Lauwerys. Prepared under the auspices of the University of London Institute of Education and Teachers College, Columbia University. Yonkers-on-Hudson, World Book, 1957. 578 pp.

How can one write an adequate review of a scholarly work with some forty-five contributions dealing with widely varied subjects loosely combined under the heading Education and Philosophy? If one searches for a common denominator, he is in danger of vague generalizations. If, on the other hand, one selects individual essays, he does injustice to contributions equally good and important. The best solution may be to enumerate first the principal sections of this nineteenth issue of the Year Book of Education, latest of a series of publications that have been a source of inestimable value for the internationally interested educator, and then to comment briefly on the work as a whole.

The first section, for which we have to be grateful because of the lack of historical consciousness among so many educators and social scientists, tells us of the "Great Traditions" in Europe, Islam, India, and China. (Would not the USSR—which now develops into a new Eurasian culture block—have deserved a special article?)

Section II deals with the "Determinants of Policy"; it includes an essay on nationalism by I. L. Kandel and five other articles concerning which I ask myself whether the editors have made any attempt at coherence. For Kandel's essay is followed by essays on "Christian-National Education in South Africa"; "Experiency"; "The Impact of Psychology on Education"; "Theory and Prac-

tice"; and, at the end, "The Basic Faith of the New Education Fellowship," which, as many people will be glad to hear, still exists.

Section III discusses "National Systems." Frankly, here I am puzzled. In a book of almost 600 pages, bearing the title Education and Philosophy, I would have expected a description of the national systems of the major nations. Instead, I am confronted with an article on "The English Public School" and one on the merits of Sir Robert Morant in regard to English educational administration, as if that were all to be said about the English national system with its gigantic development since 1870. The following two essays on "The American Common School" by Cremin and "The American College" by Fretwell are the only ones within the whole group which deal comprehensively with what the heading of the section promises. The two succeeding articles on the "Roman Catholic Colleges of Quebec" and "Basic Education in India" again deal only with segments of Canadian and Indian education; and the last article on the "Philosophy of UNESCO" hardly belongs to the section at all since, as the author himself points out, it is one of the basic ideas of UNESCO "that educational, scientific and cultural activities will themselves be enriched by transcending national boundaries." UNESCO, after all, is an international and not a national organization. This, however, minor point. The major point is the omission of so many nations about which the reader would also like to hear. No one, of course, would expect completeness, other representative examples would certainly have been welcome.

Section IV discusses some "Historical Examples," e.g., "The Forest Universities of Ancient India," "The Jesuit Schools," "The Philosophy of Enlightenment and Basedow's

Philanthropin." This is all interesting, but I miss any line of development and cogency of organization in this part of the book.

Section V deals with "Experimental Institutions." We must welcome the fact that eight courageous enterprises in the field of education will now be better known and perhaps serve as examples to others. We should hear more about such pioneering work. I might remark, however, that Bennington College is not the only institution in the United States with a new conception of college education. For instance, I would like to have seen Goddard College included, thus providing two examples of vanguards which, though different from each other, dare search for new horizons of living and learning for our youth.

Finally, Section VI discusses "The Teaching of Philosophy of Education." It deals with certain aspects in the United States, England, Australia, and France, and ends with an essay, "General Conclusions," by Kingsley Price. All these articles make worthwhile reading, but would not the heading "The Teaching of Philosophy of Education in Some Countries" have been more apropos? Why, for example, is Italy omitted with the conflict between its liberal and its ecclesiastical traditions? Or Germany? Its universities already attract more than eight thousand foreign students, mainly in the field of the humanities—to which, from my point of view, education belongs.

Here is the strange dilemma. On the one hand, I am overwhelmed by the magnitude and multitude; on the other hand, reading the titles of the six sections, I feel that I receive too little. As already indicated, once one has decided to speak about "determinants of policy" or about "national systems," one should understand the task more comprehensively and show at least the main contours of the picture.

I raise this issue because it seems to me of some universal interest. There appear now more and more Sammelbände volumes with thirty to fifty articles between two covers. In regard to the United States, I think particularly of the various, and generally excellent, symposia of a conference on science, on philosophy, or on religion. But the mass suppresses the individual work; and the meditative mind, which likes to concentrate. shrinks from the fair with too much merchandise. Though this kind of mind may be old-fashioned, it still is the only source of intellectual creativeness we possess. And, in the case of the volume under review, I believe that less might have been more. Even the excellent Introduction by Lauwerys and Holmes fails to provide the sense of unity one looks for in reading a book. The arrangement of the old International Yearbook of Education under the editorship of I. L. Kandel was, from my point of view, preferable. And since, unfortunately, it is no longer published, there is no reason why its form of organization could not be taken up by the new English-American enterprise: namely, thorough dedication to one significant topic.

In no way should my remarks be understood as a negative criticism of the book in its entirety. Like most publications of this kind, it contains articles of different value; some of great, some of minor interest because merely descriptive and without much effort to place the topic under discussion within a wider context. But nowhere has one the feeling of amateurishness or unreliability. It is a rich source of information, not only for the student of comparative education, but also for the historian of human

culture.

ROBERT ULICH Harvard University

Pioneers of Popular Education 1760-1850, by Hugh M. Pollard. Cambridge, Mass., Harvard University Press, 1957. xii + 297 pp. \$5.50.

This book is a study in comparative educational history. Its primary object, as Dr. Pollard declares in his preface, "is to show how Great Britain, during the first half of the nineteenth century, benefited from pedagogical ideas imported from Europe and ultimately sought ways and means of establishing herself, alongside Switzerland, Holland and Prussia, as a champion of educational reform." The material for this is, first, an account of the work of such educational pioneers as Pestalozzi, de Fellenberg, Wehrli, and Girard, and the development of state systems of education in Holland and Prussia; and, second, the impact of these ideas and experiences upon British educational reformers such as Robert Owen, Lord Brougham and Kay-Shuttleworth. Prima facie this would seem to be a novel and rewarding field of investigation, and Dr. Pollard has certainly rendered valuable service in showing the possibilities in this type of approach. An evaluation of the book raises two interesting problems: the validity or usefulness of such comparative studies, and the historical methodology appropriate to them.

Dr. Pollard is concerned to show how, after a poor start, Britain was enabled. through a series of educational reformers in the first half of the nineteenth century, to "take her rightful place" alongside other European countries as a pioneer in the educational world. English primary education, wedded until the mid-thirties to the Bell and Lancaster monitorial system, lagged behind Dutch and Prussian public education which had absorbed the progressive educational ideas of the Swiss reformers. From this lamentable state the English were rescued by the vision and work of a small band of pioneers who turned to Pestalozzi and de Fellenberg for their inspiration, and to Holland and Prussia for practical models to copy.

The assumption here is that English education was "backward" because of a failure to learn from the continental educational reformers. But such an interpretation surely neglects unduly the social basis of education. In any case, one of the English pioneers, Robert Owen, whom Dr. Pollard cites, developed his experimental schools at New Lanark without any foreign influence; he apparently originated them himself from his theory of character and environment.

Yet, although admiring visitors came from all over the world to see the New Lanark experiment, it was no more generally accepted as a pattern for English education than were the ideas of the Swiss reformers. Instead, socially minded Englishmen turned to the Bell and Lancaster system for their inspiration. They did this primarily not because of ignorance of other methods (no propaganda at the time was more prolonged and widespread than that of Owen) but because the monitorial system harmonized more completely than any other with the dominant social philosophy of the day. The Bell and Lancaster ideal was the nearest thing to an educational factory that had yet been devised. The fundamental objection to the adoption of Owenite educational methods was not that they would not work, or were utopian (New Lanark effectively disproved that), but that they were based on principles inimical to the new individualistindustrial society which was developing so rapidly. Contemporaries sensed, rightly, that Owenite education was subversive of, or at least irrelevant to, the kind of society they were building. By the same token, the continental experiments and systems appealed hardly at all in the turmoil of creating the workshop of the world. The respective institutions and ideas were simply on separate tracks which did not meet. Comparison of the two at this level and in this period is therefore interesting but of only limited significance.

A tiny minority of Britishers, however, were concerned with an alternative to the prevailing educational provision or lack of it; and it is this fascinating collection of educational nonconformists whom Dr. Pollard has gathered together in the second half of his book. Here the problem of historical method becomes acute; what is it we are trying to find out, and how are we going to do it? This book presents selected biographical details of each of the characters concerned (Lord Brougham, J. P. Greaves, Rev. Charles Mayo, Lady Noel Byron) and shows how each was affected by the work of one or more of the continental reformers. What

we are not shown is what all this amounts to. The big question here-which Dr. Pollard does not raise—is why, despite the work of the reformers, the main stream of English education in the nineteenth century was so little influenced by their work and theories. An answer to this is only possible if the problem is envisaged in wider terms than Dr. Pollard allows himself. The English pioneers need to be examined in terms of their social references, particularly their various interpretations of radicalism. It is not sufficient "before discussing Robert Owen's tour in detail . . . to note that, by 1816, he had acquired great fame both as a social reformer and educational pioneer." The educational position of the English reformers was so closely tied in with their various social philosophies that the one is only to be explained in terms of the other. The significance of James Pierrepoint Greaves ("the Sacred Socialist") and his experiment at Ham Common, for instance, has to be dug out of obscure communitarian periodicals of the early forties. Howitt's Journal, local temperance magazines, and the press reports of local groups of associationists in the forties are the sources from which the dynamics of this early educational progressivism must be quarried. Dr. Pollard has sign-posted us to a very inviting path; one can only regret that he has not taken us further along it.

J. F. C. HARRISON University of Leeds

The Social System of the High School, by C. Wayne Gordon. Glencoe, Illinois, The Free Press, 1957. xi + 184 pp. \$4.00.

Ever since Willard Waller described the school as a "closed system of social interaction" having a culture that is definitely its own, sociologists and educators have been interested in the nature of that interaction. Such was the purpose of Wayne Gordon's research on the social system of the high school.

In publishing this study, The Free Press has made available both the complete data of the study and the research methodology used, and in doing so has made a sufficient contribution. The results of the study and the ideas involved have, of course, been known for some time. Dr. Gordon reported on the teacher-roles section in a paper read to the American Sociological Society in 1954 (subsequently published in the Journal of Educational Sociology, September 1955); and Dr. Wilbur Brookover of Michigan State summarized the pertinent ideas concerning the student social structure in his book, A Sociology of Education, published in 1955.

Thus the present significance of this volume is in the examination of the details and the methodology, for here can be found an interesting use of a combination of sociometry, cumulative school records, and "participant observer" notes. Dr. Gordon confirmed his hypothesis that the social behavior of students is related to the status position they hold in the informal social structure of the school. He admits the difficulty in determining the degree of influence on behavior of this status position, but suspects that, although Hollingshead established the considerable influence of social class on status, the indeterminate factor of individual personality also has significance.

In these days when everyone is concerned over the "molding of our youth," it is Dr. Gordon's conclusion that the informal social organization (nonadult) is probably the molding agency, and that adult influence on that subsystem is mostly coincidental. Certainly further research on the communications between the adult and adolescent social structures seems to be implied.

Donald R. Thomas University of Wisconsin

The American Two-Year College, by Tyrus Hillway. New York, Harper & Brothers, 1958. xi + 276 pp. \$3.75.

At no time in our history has the subject of higher education received as much attention as it is receiving today. And in this field the community college idea is the liveliest, most talked about topic. During the last year for which enrollment figures are available, some 869,720 students were served by the institutions reported in the American Association of Junior Colleges' Junior College Directory, 1958. In this total were represented slightly more special and adult students than regular freshmen and sophomores. This is one of the strengths of the two-year colleges in America-they represent a variety of institutions and they serve a wide range of students by providing comprehensive programs.

A book devoted to a description of these colleges is indeed timely and welcome. Tyrus Hillway has set as his purpose "to supply a comprehensive and understandable picture of the American two-year college in compact, readable form." (p. x) He identifies his readers with the statement "The present book has been prepared not only for those who already have a speaking acquaintance with junior and community colleges, but also for those who know nothing or little about them." (p. ix) It is in relation to this purpose for these two reading groups

that the book must be judged.

Since the author's purpose is a broad one, it has led him to a broad coverage of his subject, and in thirteen chapters he deals with practically all identifiable aspects. The first four chapters discuss, in succession, the nature, development, goals, and students of the two-year college. In the next seven, the author pairs selected topics: "General and Vocational Education," "Cooperative and Adult Education," "Guidance and Student Welfare," "Student Organizations and Athletics," "Teachers and Administrators," "Legal Status and Accreditation," "Buildings and Record-Keeping." A chapter on "The Community College Survey" is next, while a concluding section deals with "Problems and Patterns of the Future." Although some of his pairings are regrettable and result in unrelated sections, Mr. Hillway's coverage certainly justifies his previously quoted term "comprehensive."

Coverage in this book is also broad in the sense that the author has included in his description practically all the types of institutions represented in the two-year category: private nonprofit junior colleges, public community colleges, private nonprofit community colleges, technical institutes, university branches, military colleges and theological institutes. He also gives the reader a clear picture of the geographical distribu-

tion of our two-year colleges.

Perhaps as a result of the comprehensive purpose which he set for himself, Mr. Hillway has allowed himself to make some unfortunate generalizations. There is space to cite only a few of many instances. Regarding the quality of students in two-year colleges, he contends that "There is ample evidence showing that junior college students compare very favorably with other students." In support of this he gives comparative results for 1943 on the American Council on Education Psychological Examination. He fails to refer to the many studies which show that while junior college student bodies usually include some individuals with abilities equal to the best in other types of colleges, they also include a greater proportion with lesser academic abilities. To this reviewer, this comprehensiveness represents a desirable and consciously sought characteristic of the community college. Another example of overgeneralizing: the author cites one summary of several studies of transfer students as showing that "junior college transfer students actually demonstrate marked superiority over comparable groups of students who have entered four, year colleges and universities as freshmen." This, to put it mildly, creates a misleading impression.

The author is at times overly optimistic regarding the two-year college movement. For instance, he prophesies that "If present indications can be relied on, the time is not far off when every state interested in the welfare of its young people will have a coordinated system of community colleges."

Of the author's two audiences, those who "know nothing or little" about community colleges fare better than "those who already have a speaking acquaintance" with them. Little has been written for the first audience, however, and for this group Mr. Hillway has produced a useful work.

RALPH R. FIELDS Teachers College, Columbia

Behavioral Goals of General Education in High School, by Will French and Associates. New York, Russell Sage Foundation, 1957. 247 pp. \$4.00.

The currently sharpened discussions about the functions of education in these United States serve to enhance the contribution made by Will French and Associates in Bebavioral Goals of General Education in High School. Some years ago this reviewer was impressed by the soundness and usefulness of Luella Cole's contention that the task of the school was to produce the socially adjusted person who knows something. Too many of the present crop of critics of education buy only the second clause in Professor Cole's statement; namely, "who knows something." They seem to fear that a sound program of general education will channel the student's intellectual capacities into the tasks of self-realization and responsible citizenship.

At any rate, it is heartening that this volume "assumes that students are not only expected to know something but are also expected to know how to use what they know and to have a disposition to do so." On this point it quotes effectively from Whitehead as follows:

The importance of knowledge lies in its use, in our active mastery of it—that is to say, it lies in wisdom. It is a convention to speak of mere knowledge, apart from wisdom, as of itself imparting a peculiar dignity to its possessor. I do not share this reverence for knowledge as such I. such. It all depends on who has the knowledge and what he does with it.1

Is it not true that pupils in secondary schools tend to regard as significant to the

Whitehead, Alfred North. The Aims of Education, and Other Essays (New York, The Macmillan Company, 1929), p. 43.

teacher and the school primarily those matters upon which they are appraised, tested or examined, and which also become a matter of record? Admittedly it is easier to test for the achievement of knowledge than it is to find evidence of some behavioral competence. Yet Will French and Associates have contributed more toward the realization of this latter goal than any other endeavor has to date. They state, "the more specific we can be about behaviors we desire as a result of teaching, the more probable it is that we have made it possible for teachers to identify some evidence, either direct or indirect, of behavioral competence in students." (p. 36)

Part III, "Organization of Proposed Behavorial Outcomes," constitutes, as one should expect from the title, the major part of the report. Here one finds "illustrative behaviors" stated in terms of what may be reasonably expected of superior high school seniors. By reason of his present concern with economic education, this reviewer, using the chart on pages 88-89, checked on the behavioral competencies which are illustrative of "Becoming Economically Competent." It may be asserted with confidence that the "Illustrative Behaviors" found in these pages are pertinent and suggestive to teachers and all those responsible for curriculum improvement in the area of economic education.

The quality of Behavioral Goals of General Education in High School speaks for itself. Even so its prestige is reinforced by the fact that the project was proposed by the National Association of Secondary-School Principals, made possible by the aid of the Russell Sage Foundation, and managed by the Educational Testing Service. Advisory help from the American Association of School Administrators, Association for Supervision and Curriculum Development, and the United States Office of Education also adds to the factors which further commend the report. Wide usage by teachers, curriculum groups, and experts in testing is predicted.

GALEN JONES Council for Advancement of Secondary Education Legal Aspects of School Board Operation, by Robert R. Hamilton and E. Edmund Reutter, Jr. New York, Bureau of Publications, Teachers College, Columbia, 1958. xi + 199 pp. \$4.95.

A big gap in the literature of school law has been filled with the publication of Legal Aspects of School Board Operation.

This text and guide views the problems faced by the 200,000 citizens serving on boards of education who are legally responsible for the management of the American public education enterprise. While there has been considerable excellent writing in school law in recent years, this is the first major publication to address itself specifically to the board member.

Robert R. Hamilton and E. Edmund Reutter, Jr., are uniquely well qualified as individuals and as a writing team for the authorship of such a book. Robert Hamilton has developed his experience as a public school administrator, as a practicing attorney, as a law school teacher and dean into keen interest and sound scholarship in the law as it applies to public education. Edmund Reutter is a developing leader and thinker in the area of school administration. From their respective vantage points-Dean Hamilton from Laramie's altitude of 7200 feet, and Dr. Reutter from Manhattan's skyscrapers-they have surveyed the legal framework of the American educational scene and have missed nothing of significance. The book covers these major areas: the legal structure of the local school board; the authority of school boards in relation to pupil personnel, curriculum, employed personnel, school property and school funds; contractual authority of school boards; school board membership and meetings; school board procedure; and liability of school districts and board members.

The citations at the end of each chapter, covering some 300 leading cases involving education which were heard in courts of record, will be helpful to those seeking more specific information regarding certain decisions. The date of each case is given.

While the book is non-technical in nature,

the authors do not hesitate to use legal terminology. But the legal terms should not prove difficult for the lay reader even in the absence of a glossary, since the authors define them as they are introduced.

Law is always a specific thing, and a book such as this is not meant to substitute for a study of constitutional provisions, statutes, court decisions, and appropriate administrative rulings. However, study of the book will provide board members and administrators with a frame of reference and indicate the prevailing legal patterns as they exist throughout the country. What is perhaps most important, it will help an individual understand the philosophy of the law as it applies to education.

Board members will find Chapter VII, "Contractual Authority of School Boards," of particular significance. The chapter opens with a brief description of the essential elements of a contract. It discusses both personnel and non-personnel contracts. It describes legal processes involved in contracts, and discusses liquidated damages, "contract-jumping," and the application of board regulations to teachers' contracts.

School board members reading this book will understand that they are not officers of a local district but of the state. They will understand the distinction the law makes between "reasonableness" and "wisdom" in board procedure. They will learn that their board membership gives them no advantage over any other citizen in the management of the school's affairs except when they are actually sitting as members of the board. They will learn about liability of districts, of employees, and of board members.

In short, this reference will be of tremendous value to board members, for whom it is designed. School board attorneys and school administrators will find the book invaluable. It will make an excellent text in college education classes, and should be placed in all college library and professional collections.

D. W. Tieszen Central Missouri State College Warrensburg, Missouri

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TEACHERS COLLEGE RECORD

Ferment in the Study of Organization*

DANIEL R. DAVIES

PROFESSOR OF EDUCATION, TEACHERS COLLEGE

LAURENCE IANNACCONE

RESEARCH ASSOCIATE, CPEA, TEACHERS COLLEGE

Ew light is gradually being thrown upon some annoying organizational problems which have plagued educators for so long:

Should school systems be centralized or decentralized, and to what degree?

Is the pyramidal structural pattern superior to a "flat" one? Why? Why not?

Is the line-and-staff concept outmoded?
What constitutes an acceptable span of control?

Where should loci of authority be?
What is the optimum size of a school district?

What relationship should education have to other government?

Professor Davies is Coordinator of the Kellogg Foundation Project in Educational Administration at Teachers College. He is coManagement, which was published recently by Harper and Brothers.

Mr. Iannaccone is Research Assistant to the Scarsdale, New York, Town Club Committee on Educational Objectives.

THE PROBLEM IN PERSPECTIVE

But before concentrating our attention on the new leaven or ferment in the study of *organization*—and there is such today—let us seek a perspective for the newer trends in organizational thought.

It should be borne in mind that educational administration as a discrete field of study is almost entirely a phenomenon of this century. Much of our thinking about and practice of organization in schools has been patterned on that done earlier by men in business, government, and the military. Consequently, the school superintendents and other educational leaders of the past century have in a very real sense been pioneers, creating organizational structures, jobs, and job relationships as school committees and school boards turned more and more functions over to them. Lacking research and theory in their own field, they bor-

Bureau Ednl. Research

rowed, adapted, and created, using the pragmatic test for excellence: if it worked, it was good.

Those administrators might be characterized in the main as charismatic leaders (to use Weber's term). They operated in a personalistic, if not paternalistic, fashion. And they did remarkably well in what, from our present position in time, look like small and relatively simple organizations.

Rapid changes affecting schools and school organization continually buffeted those early generations of school administrators. They had to yield to pressures resulting from population expansion, extension of the age span of pupils attending, and expansion of the public's expectations of what schools should do.

Today, we find ourselves studying organizations which have increased in size and complexity with bewildering speed, usually without planning which went beyond response to emergency. We find, too, that with respect to serious, systematic study of *organization* we are in a position comparable to that of a young child with older siblings: we tend to "look up" to other fields of public and private organization.

There are advantages, of course, in allowing others to "break trail" for us. The disadvantages lie in the risk we run of adopting too uncritically the results of work which has been done in a different setting.

Nevertheless, we find that much of the "new" in study of the topic is similar to, and continues to borrow from, other fields of organizational study. Hence, while concentrating on the ferment in our field of education, we cannot close our eyes to significant developments in other fields and in several related disciplines.

AN APPROACH TO THE PROBLEM

One helpful rubric for assaying the current scene as to organizational theory and study is that used by Katz in his approach to an understanding of administration: the three-skills aproach. While he was interested in classifying types of administrative behavior, the same framework is useful for describing where we have been, for evaluating our present situation, and for projecting a view of the future in organizational study. The study of organization, in education as well as in other fields, may be seen as evolving through three stages similar to the three types of administration noted by Katz and as calling for, respectively, technical skill, buman skill, and conceptual skill.1

Now let us take a look at these skills and see how they parallel the study of organization.

The "Technical" Era

This particular skill is defined by Katz as follows:

... an understanding of, and proficiency in, a specific kind of activity, particularly one involving methods processes, procedures, or techniques. Technical skill involves specialized knowledge, analytical ability within that specialty, and facility in the use of the tools and techniques of the specific discipline.²

This is the kind of skill most commonly acquired by school administrators during their training period. Courses in school finance, pupil accounting, school-building planning, construction and maintenance, schedule making, purchasing, and similar skills insure a certain level of

¹Robert L. Katz, "Skills of an Effective Administrator," Harvard Business Review, 33:33-42, January-February 1955. ² Ibid., p. 34

competence in the embryo administrator. Technical skills are those most easily taught and most easily learned, and in which the highest degree of proficiency is achieved.

The era of Taylorism and earlier, in industrial organizations especially, can be seen as a period when the technical aspects of organization were the center of interest. Organizational forms were justified by logical factors rather than psychological or sociological factors. Problems which we are still attempting to solve, although our basic approach to them has changed, were also tackled from a technical and purely logical angle. For example, the span of control was seen logically as a limiting factor on the structure of the organization and on the supervisory activities of executives. Lineand-staff problems were attacked from a technical and logical point of view. Thus the pyramidal type of organization seemed a logical necessity. Effectiveness was measured almost purely in terms of production and output as these related to cost. A high degree of centralization was considered most efficient, and communication was thought of as a one-way street. Finally, since the logically developed form seemed to be dictated by technical and efficiency considerations, the organization chart which reflected these was seen as a Procrustean bed which the activities of organizational members were expected to fit.

The study and practice of school organizations, no less than any other type of formal organization, have gone through this period. This is evident in the kind of training given administrators, the centralizing tendencies of schools and school districts, the pyramidal structures, and the handing down of curricula from the expert's office

The "Human" Era

Katz defined human skill in administrators as "the executive's ability to work effectively as a group member and to build cooperative effort within the team he leads." Essentially, human skill is contrasted with technical skill: working with people versus working with things.

What is an administrator like when he has a highly developed set of human skills? First of all, he knows himselfhis strengths and weaknesses. He is aware of his own attitudes and assumptions. He has an inner security which enables him to consider new ideas and he can work to bring about orderly changes in both the system and the people in the system. He is skillful in understanding others' words and behavior because he accepts viewpoints, perceptions, and beliefs which differ from his own. He works to create an atmosphere of approval and security for all his organization. He knows that all he does or fails to do has an effect on his associates. Human skills have become an integral part of his whole being. They are not easily attained, and the graduate schools are now seeking better methods of teaching them.

Similarly, the second period in the study of organization may be seen as a contrast between working with people and working with things. At least since the Mayo studies⁴ at Western Electric Corporation, an increasing number of students have seen *people* as the content of organizational study.

These studies are too well known to require detailed discussion. It should be recognized, however, that the research teams which undertook the Mayo studies

⁸ Katz, op. cit. ⁴ Fritz J. Rothlisberger and William J. Dickson, Management and the Worker (Cambridge, Mass., Harvard University Press, 1939).

began with an attempt to measure organizational effectiveness in particular. They also began with technical and essentially logical orientations, as may be seen from their first studies on lighting, physical fatigue, and so forth. They were compelled, over the years, however, to proceed to what Rothlisberger and Dickson5 described as an earlier, rejected hypothesis: the influence of the social system on production. It was only after they abandoned a "things" approach and concentrated on a "human" approach that they were able to explain many of the problems which were inexplicable in purely logical or technical terms.

Subsequent studies, from service industries to military organizations, from office clerks and janitors to investigatory agencies and top management, have built on and extended these findings. The study of educational institutions, both suffering from and profiting by its earlier preoccupation with the "things" approach, has but recently made use of this "new" content. It must be admitted that the content is newer for us in educational organization than for students of other

types of organization.

Without attempting to list the vast number of studies which have concentrated on this human relations aspect of organization, let us look at what happened to six of the problems listed earlier as typical of the technical phase in the study of organization. They were lineand-staff, span of control, centralization and pyramidal structure, one-way communication, the organizational chart, and effectiveness measured in terms of product only.

Take the first three—line-and-staff, span of control, and centralized pyramid form—together, since they are closely related problems as well as aspects of the ⁵ *Ibid*.

form or structure of the organization.

Line-and-staff problems were discussed by Thompson⁶ recently in reporting a study of military units. He found that "identical" formal structures in two different units exhibited differences in the status systems of the officers in each. He also found that regardless of the formal structure, staff officers of one echelon held power over line officers of lower echelons which resulted in narrowing the choice open to line officers and in limiting their power to make decisions. Staff officers, in effect, held power over line officers without violating the chart of their formal authority! Coser,7 in a study of two wards in a hospital with identical formal organizations, found sharp differences between them in terms of their informal organizations, the organizational levels at which decisions were made, and the organizational climate. These differences were related to the basic activity of each ward: one was a medical ward, the other surgical.

Bey,8 using a decision-making approach to organization in education, reported a study of schools with similar formal structures for this purpose. He found that they differed, however, in the social climate or environment in which decisions were made, and concluded that this difference rather than the formal structure distinguished "good" from "poor"

school organizations.

Cornell,9 in an article in School Execu-

⁶ James P. Thompson, "Authority and Power in 'Identical' Organizations," American Journal of Sociology, 62:200-301, November, 1056.

of Sociology, 62:290-301, November 1956.

⁷Rose L. Coser, "Authority and Decision-Making in a Hospital," American Sociological Review, 23:56-63, February 1958.

Bouglas R. Bey, "A Further Study in School Organization," Phi Delta Kappan, 37:217-21, February 1056.

⁹ Francis G. Cornell, "Organization is More than a Line Chart," School Executive, 77:83-86, September 1957.

tive, stresses the importance of social perception in connection with the divergence between individual and organizational goals. Administration is, he says, the maintenance of these potentially divergent goals in proper balance so as to accomplish the school's goals. Cornell then states that the climate of the school is more important than the form of its organization. Davies,10 French,11 and Skogsberg12 go further. Describing the line-and-staff structure as an essential but extremely narrow way to view organization, they propose a more comprehensive pattern based upon purpose rather than hierarchy of authority. However, there seems to have been no research or further speculation following upon their suggestions.

In connection with the span-of-control concepts of administration and the related pyramidal structure of organizations, Dale, reporting on the Sears study wrote:

Detailed studies on the span of control at Sears, Roebuck and Company very definitely show the superiority in operating efficiency of a large span of control, provided subordinates are of high competence and self-reliance. Sears' regional vice-presidents now have full authority over everything in their territories, except purchasing, of course. These vice presidents report to the president. As a result, Sears' president now has 13 executives directly under his supervision. These territorial vice presidents, in turn, have even more people reporting directly to them. In addition, other executives down the line have direct access to the president.13

Daniel R. Davies, "Organization Patterns or Today" Record, for Today's Schools," Teachers College Record,

November 1950, pp. 90-97.

November 1950, pp. 90-97.

The Postwar High School Teachers Col-Should Be Purpose-Organized," Teachers Col-

lege Record, April 1945, pp. 403-12.

12 Alfred H. Skogsberg, "Basing Staff Organization on Purpose," Phi Delta Kappan, 36: 213-18, March 1955.

Ernest Dale, Planning and Developing the

Turning to educational organization again, an ambitious study of staff organization for effective operation has been made by the New York Cooperative Development of Public School Administration (as the CPEA in that state was called). This was an action research project in the sense that the users of the products of the study engaged in the study. Yet there was constant reference to basic research done in the field. For our purposes, the conclusions of Report #2, Modern Practices and Concepts of Staffing Schools, are sufficient to illustrate what effect the present "human" orientation is having on the study of old problems. This study concludes:

1. All organizational structures are line-and-staff, no other type has yet been invented or is likely to be.

2. The structuring of an organization should proceed after purposes have been clearly stated.

3. The organization should be under unit control, and all major administrative officers should be trained professional educators.

4. There should be a considerable degree of decentralization in the district organization.

In another study, reported by The Educational Conference Board in New York State in 1957,14 the problem of school district organization in relation to size and quality of educational program was examined. Here, for the first time, some upper limits of size as to population were suggested primarily on "human" grounds. As size increases, new organizational patterns are called for to maintain effective communication and

Company Organization Structure (New York: American Management Association, 1952), p. 53. 14 New York Educational Conference Board, School Quality and Local School Government (Albany, 1956).

control relations between lay citizens and professional educators. According to the report, no organizational structure has yet been invented which suits the educational needs of the system.

The relative weighting to be given the pros and cons in the above positions concerning the optimum form of school organization need not concern us here. It is clear, however, that we have a range of positions from the modified pyramid through the flat, decentralized type to the position which says, in effect, "It is 'climate' which counts, not form." That range of positions, it is equally clear, exists because of the "human" frame of reference which has permeated recent organization studies.

Touching briefly on communication and the organization chart problems, we find that the change from exclusive concern for "things" and techniques to the inclusion of "people" is reflected in drastic revisions of earlier assumptions about the function of charts of formal organization. For example, several familiar phrases now under question are: "going through channels," "communication down the line and up the line," "top brass," and "the executive ladder."

Gradually pushing such expressions into obsolescence are new researches on feed-back systems, on the relationship of formal to informal systems, on charting which takes into account the organizational power structure, on work-flow as well as authority channels. The new knowledge is leading to attempts to adjust the chart to people rather than people to the chart.

This, for example, is what Arensberg and MacGregor¹⁵ recommended in their

¹⁵ Conrad Arensberg and D. MacGregor, "Determination of Morale in an Industrial Company," Applied Anthropology, 1:12-34, January 1942.

study of the morale of a division of design engineers in an electrical equipment plant. Some corporations follow the practice of revising the chart at regular intervalts to suit the informal system. Students and consultants in many areas of organizational research (including schools) are attempting with increasing frequency to make the formal organizational chart conform to the operating procedures informally developed by organizational members. Similarly, the addition of various kinds of advisory committees to organizational structures is intended to aid feedback and intercommunication generally.

munication generally.

Finally, product measures of effectiveness have been seen to have weaknesses which seriously impair their practical value. A recent article in the Harvard Business Review16 cited research which indicated that high production is frequently achieved at the cost of placing stress on the organization's human relations. In the short run, this might not show in terms of product measures even over a period of several years. It is possible to get high production, trading as it were on previously banked good will. In the long run, however, the price for this high production is paid in terms of low production, poor human relations between management and workers, and low morale. Thus product measures are attacked precisely in relation to the human element, which is the key motif of this second period in the study of organization.

The problems in measuring school organizational effectiveness are even more complex than where either a profit and loss statement exists or widgets can be counted. Educational organizations were

¹⁶ Rensis Likert, "Measuring Organizational Performance," *Harvard Business Review*, 36: 41-50, March-April 1958.

made to order for process measures when, as an aftermath of the Mayo studies, students of organization began to focus on process rather than on product measures. As Halpin¹⁷ has pointed out, the bulk of the research in educational administration has concerned itself with process. Intermediate measures of effectiveness have been used widely, but no ultimate criteria have been developed for

organizations in education.

The search for process criteria of effectiveness based upon the dominant theme of this period—organization is people—took, and in education is more and more taking the form of measures of effectiveness in terms of convergence of perception, role expectations and conflicts, and employee (that is, teacher) satisfaction. Morale studies, for example, are hardly studies of organizational effectiveness except if the assumption is made—and there is considerable evidence to support it—that poor morale means ipso facto poor production.

Leaving aside for the moment consideration of the validity of the measure, and its invalid converse, it is clear that here the organization is measured specifically in terms of its human relations.

Illustrations of some of the more obvious shifts in thinking about organizational theory in this "human" period might be summarized thus:

I. The form of the organization is for some much less important than the climate; and for others it is not very meaningful without the climate. (And remember when people say "climate" in organizational jargon, they are saying human relations climate.)

2. Formal organization, often in terms

search on Administrative Behavior," in Administrative Behavior in Education (New York: Harper and Brothers, 1957), Chapter 5,

of the chart itself, is seen as emergent rather than fixed, and as conformable to the informal organization rather than the converse.

3. The trend toward centralization is being questioned. Since the Sears¹⁸ studies, a justification in terms of efficiency has been added to psychological arguments in favor of decentralization.

4. Criteria of effectiveness have been based on self-reported self-perceptions of satisfaction, role definition and behavior, conflict of expectations, and so forth.

As may readily be seen by contrasting the foregoing concepts with the dominant ones of the technical period, the present approach to the study of organization constitutes not only a shift from things to people but, better, a reaction from things and technical skills to people and human skills. Perhaps for this reason much of present writing and research on organization bears the mark of a reaction in the sense that it overstates its case. So, at least, run the recent arguments of a number of careful students of organization who have made real contributions to the human relations aspects of organization theory. The embryonic change which seems to foreshadow the beginning of a new period in organizational study may also be seen as a logical outgrowth of some of the major corollaries to the thesis of phase two-the content of organizational study is people.

Three corollaries may be stated thus:

i. Because the content of organization is people, the study and structuring of organizational form must rest upon psychological and sociological factors primarily.

2. Since the content of this branch of study is people, or more specifically human behavior, an interdisciplinary team approach is required.

18 Dale, op. cit.

3. Since, to quote Harry Stack Sullivan, "human beings are more nearly human than anything else," this content provides a common meeting ground for students of different types of organization. Evidence for this may be seen in the opinions of students of administrative theory.

For instance, the appearance two years ago of the periodical Administrative Science Quarterly is itself evidence of a growing sense of common bonds on the part of students of different "adjective" fields of administration. Of eight papers presented at the first University Council for Educational Administration seminar at Chicago last year, seven gave expression to the theme that administration in the various fields was more alike than different.

The Conceptual Era

The shape of things to come is growing out of convictions and conclusions from all of the foregoing activity. It is clear that organization must be seen in terms of people, that psychological and sociological systems outweigh in importance purely logical forms and techniques, that interdisciplinary approaches must be used, and that human organizations, whatever their type or field of application, are more alike than different.

The kinds of training, study, and research which are bound to result from such concepts are also bound to produce the type of student who will give the third phase its characteristic commentary, theory, and study.

The characteristic goal of this third phase will be an encompassing theory, unifying concepts in an effort to relate pertinent data comprehensively to organizational design, function, and adaptability. In the current writings of students of organization one senses dissatisfaction

with present formulations of role theory, with the use of satisfaction and morale as criteria, with static views of aspects of organization, and with the omission of bodies of relevant data from most existing approaches.

The third or conceptual phase, then, corresponds to the last of the three skills

defined by Katz:

whole; it includes recognizing how the various functions of the organization depend on one another, and how changes in any one part affect all the others. Recognizing those relationships and perceiving the significant elements in any situation, the administrator should then be able to act in a way which advances the over-all welfare of the total organization.¹⁹

This era in the study of organization will be characterized by a search for concepts which will adequately describe "... how the various functions of the organization depend on one another, and how changes in any one part affect all the others." There will be continued movement away from static description, from speculation alone, from design based upon hunch toward quantified descriptions of the dynamics of organization, toward study of change and adaptability, toward formulations based upon research and controlled experimentation.

There can already be seen a reaction against the reaction, as it were, in the criticisms of the shortcomings of present approaches to theory. Take the case of the search for criteria of effectiveness. Coladarci²⁰ has labeled the search for a criterion of what constitutes success in terms of the perceptions of various reference groups as a search for a will-o'-thewisp. Briefly, his position is that there

¹⁹ Katz, op. cit., pp. 35-36.

²⁰ Arthur P. Coladarci, "Administrative Success Criteria," Phi Delta Kappan, 37:283-85, April 1956.

are differences among reference groups, and that even within each reference group there are variations not attributable totally to error in perception of what constitutes success. Therefore, limiting ourselves to this approach in our search for a criterion must be relatively unfruitful.

Halpin²¹ made a strong argument for the development of ultimate criteria of effectiveness. Until we have them it will be difficult if not impossible to state with certainty or to test scientifically what organizational forms are "good" or "poor."

In essence, the answers to questions such as those of decentralized versus centralized administration, of optimum size of a school system, what line-and-staff relationships are best, and many others will depend upon the development of ultimate criteria of effectiveness. Halpin suggests that such a criterion might be the degree to which a school achieves its task. And he proposes that the task be defined by the profession, informed members of the larger society, and others. This, unfortunately, lands us in the dilemma Coladarci²² warns about—the perception of various reference groups of what constitutes success. The effort to discover criteria of effectiveness with which to measure school organization has borne little fruit. However, it has revealed that a dynamic view of organization as an emergent rather than as a static and complete entity lies at the heart of this third phase, the conceptual.

While it has always been obvious to careful students that organizations are not static, it is only recently that we have attempted to study or even to propose ways of studying organizational change.

It was pointed out above that Halpin proposed that change in achievement be studied to measure effectiveness. If we mention Argyris²³ and others who have studied the effect of the organization on people and people on it, we are actually talking about studies which attempt to get a dynamic rather than static picture of organization. The methodology and concepts which we must use, however, are the results of the human relations and relatively static point of view. It is as if one took a series of still snapshots of an object and then used a movie camera on the same object. They may both show change, but only the movie camera gets the fine points and illustrates the sequence. The bulk, perhaps (certainly many), of the studies of the relationships between organization structure and people are involved in change—the process by which the organizational structure molds and changes people and that by which people mold and influence the organization. In a word, most of the writers mentioned above are touching on interaction between people and organization. This focus on interaction between component sub-systems of the larger system, which is the organization, requires a conceptual scheme which takes into account people and things and also pays particular attention to the interactive processes which may produce change in organizations.

Conceptual skill was defined by Katz²⁴ as "the ability to see the enterprise as a whole; it includes recognizing how the various functions of the organization depend on one another, and how changes in any one part affect all the others. Recognizing those relationships and perceiving the significant elements in any situation. . . " This definition tells us much about the future directions in the study

²¹ Halpin, op. cit. ²² Coladarci, op. cit.

²³ Chris Argyris, Personality and Organization (New York: Harper and Brothers, 1957). 24 Katz, op. cit.

of organization. If we are to impart critical knowledge to aspiring administrators and other students of organization, our vision of the future must be as clear as possible. Approaches to organizational study which stress conceptual skills must: (1) be molar rather than molecular; (2) pay close attention to the interdependencies of functional relationships; (3) isolate or reveal significant elements in organizational situations; and (4) derive information from the study of change in organization.

These four conclusions may be seen not only as a consequence of the need for tools which extend conceptual skills, but also as a response to the recent writings of thoughtful students of organization who have evaluated present knowledge and exposed its inadequacies.

Charters, for example, made a study of the research on the characteristics of school board members. In some seventyfive studies in this area conducted since 1904, the same findings were reported over the years. Charters says, "To add more information of the same sort to the vast accumulation of surveys already at hand is a misdirection of research effort. The pressing problems of education call for research which explains how our schools and school boards function; the time for descriptions of the status of board members has passed."25 When we talk about studying how organizations function, we are talking about dynamics, interaction, or interdependent changes.

A recently published report by Gross and others may be the largest study in education using the role theory. Their conclusion is that role theory "... has yielded few significant hypotheses of theoretical importance. If one judges the scientific utility of a concept by the degree to which it is involved in significant theoretical propositions that are capable of empirical examination, it must be said that in current formulations the role concept has not proved its worth."26 As a result of several years of study, Gross and his coauthors suspect that the weakness of this theory lies in the key assumption that the phenomenon to which role concept refers can be identified and described by consensus. And they further suggest works which treat consensus as a variable and study the interaction which produces it. Again the focal point is change.

The September 1955 Journal of Educational Sociology was devoted to reports of role studies. In a critique of research on teacher and administrator roles, Brookover²⁷ pointed out that we do not know under what conditions actors can impose their definition of the role on others. He noted that role and role definition are continually redefined in interaction, so that the self-involvement and definitions have an impact on role expectations but do not control them. He also suggests research on the dynamic interaction process by which roles are defined and redefined.

Bidwell²⁸ proposes an approach which will include the human relations approach as one of three dimensions in organizational study. He distinguishes between what he calls the traditional concept, which saw organization and administra-

²⁵ W. W. Charters, Jr., "Beyond the Survey in School Board Research," Educational Administration and Supervision, 41:449-52, December 1955, p. 452.

²⁶ Neal Gross, Ward S. Mason, Alexander W. cEachern Factories McEachern, Explorations in Role Analysis (New York, John 1977), (New York: John Wiley and Sons, Inc., 1957),

pp. 319-326.

27 W. B. Brookover, "Research on Teacher Educaand Administrator Roles," Journal of Educa-tional Sociology, 29:2-13, September 1955 in 28 Charles E. Bidwell, "A New Dilemma Administration." How Dilemma

Administration," Harvard Educational Review, 26:388-404, Fall 1956.

tion in terms of the allocation of resources both human and material without a priority for either, and the notion that organization is social process with attention paid particularly to the needs and goals of individuals (that is, what we have referred to as the "technique" and "human" periods in the study of organization). Neither, he suggests, is sufficient because the organization has three dimensions: (1) the economic-involving use of scarce means to organizational ends; (2) the political—or the authority and enforcement features of the organization; and (3) the sociological-role relationships, formal and informal organization, and so forth.

The economic and political features of organization were seen as the principal concerns of the traditional study of organization. The more recent work is what we have called the "human" phase of the study of organization. Bidwell suggested that much of what has recently been proposed in terms of team approach to administration, the formalizing of informal systems, and so on is an attempt to place the informal human systems under the control of the formal structure.

According to Bidwell, the new dilemma in administration and organizational thinking lies in the implications of just this attempt to place the informal under the control of the formal systems. There seems to be," he says, "an implicit assumption that the traditional thinking (concerning the economic and political dimensions of organization) is adequate and that it simply needs to be supplemented with new sociological understandings." Attempts to combine these is productive, he believes, of conflict.

Specifically, evaluating the present thinking, he suggested that we are not paying enough attention to the political and economic dimensions. Present human

orientations to organization lack a "whole" organizational theory.

While we may take issue with the specific labels Bidwell used and the dimensions he proposed, it is not easy to ignore the fact that a student of educational organization whose work, like that of Gross, emphasized the sociological or human side of administration now concludes that sociological formulations of organization and the second property.

tion theory are incomplete.

Several other writings might be mentioned, among them the model proposed by French²⁹ for studying social perception by examining the interaction among the power structure of the organization, the communications network, and the opinions of group members. However, the common theme which can be seen running through the writings of a number of students of organization in a variety of fields is a rising interest in the study of change. For this, a molar view of the relationships and the interaction among organizational elements is necessary.

In our field of educational administration, two approaches to molar thinking have appeared. The tridimensional-trirelational taxonomy suggested by Davies and Livingston (and modified by them in recent writings) represents a search for interrelated factors associated with organization. As a taxonomy, however, it is basically static. At a more advanced level, Paul R. Mort³⁰ has been attempting to relate a series of intraorganizational and extraorganizational values quantitatively to a measure of school quality. His effort, so far as is known, represents the

²⁹ John R. P. French, Jr., "A Formal Theory of Social Power," Psychological Review, May

^{1956,} pp. 181-94.
30 For the best synthesis of published materials to date see Administration for Adaptability, Donald H. Ross, Ed. (New York: Metropolitan School Study Council, 1958).

pioneering and almost exclusive attempt in our field at an all-encompassing theory based upon quantified evidence.

Now let us take a brief over-all view of the scene. We moved first through a period characterized by a rather static view of organization based upon logical forms and technical skills and concerned primarily with things. Recently the field has developed a more flexible concept of organization, with emphasis on people and psychological and sociological forms. Present signs point to a new approach to the study of organization. This approach, we have suggested, will bring a molar orientation to organizational study, paying particular attention to functional relationships and interdependencies as revealed by studies of change in relationships both inside the organization and between the organization and its social environment.

We shall need, however, to face up to many problems before the third approach can really come of age. Problems in connection with our concepts, taxonomies, methodology or research, and even our basic approach confront us. Our concepts and our research design, for example, must provide us with tools for studying movements or process rather

than matter. In terms of taxonomies, a number of problems beset us, but the gravest of these is the need to distinguish between genotypic and phenotypic classifications, especially where interactive groups are involved. Numerous methodological problems are before us. However, some more important needs may be seen in the obvious requirements of 2 true study of dynamics in organization. The need for team rather than individual research will grow. Closer observations of organizational behavior will have to be undertaken. More quantified data and mathematical formulations will appear. Finally, our basic approach must look toward a philosophy (or philosophies) of organization as a rationale for holistic or molar organizational theories and studies.

The problems are not small. But the excitement of entering a new era in a field of study is, at least for its devotees, more than compensation for the difficulties ahead. The pictures that we have had of our organizations have been incomplete, perhaps as incomplete as those which the blind men gained of the elephant. For us, however, a clear view of the whole animal may be just over the horizon.

Additional Observations on the Study of Administration

A Reply to "Ferment in the Study of Organization"

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T is gratifying to see teachers of educational administration reaching out, examining the ideas and hunches of other fields of study and inquiry. Each discipline or professional group has strong aspirations toward self-sufficiency; it is educational to be occasionally reminded of the limitations and costs of this aspiration.

In responding to Dr. Davies' discussion, I should like to suggest the addition of two other "dimensions" or "stages" in the study of organization. It is not easy to fit them into the Davies chronological scale, but perhaps we can think of them as closely related to his third stage.

The first of my additions is decision-making. Some of our most illuminating and rewarding efforts to study organization have used the decisions, or alternatively the decision-making machinery, of an organization as the focus of research attention. This kind of study catches the organization in motion, reveals its internal power structure, measures the

Before I discuss my second addition, I should like to note that all four of these dimensions (Davies' three and my first addition) tend to emphasize values *internal* to the organization. These internalized values are important, especially to the members of the organization, but they are not all-important.

My second addition emphasizes the external values of organization. We might call it the responsibility and accountability dimension. This aspect of the study of organization is concerned with the questions: For what is the organization responsible? To whom is it accountable? The organization exists in and for the society of which it is a part. What are the lines of assignment and

values and techniques of its leaders, and gives us some qualitative tests of organizational performance. We have had valuable abstract studies of decisions as a form of organizational behavior, such as those by Herbert Simon; we have the rightly famous case studies of business organization decisions, done under the leadership of the Harvard School of Business; and we have the more recent case studies in public administration (almost a hundred of them) made by the Inter-University Case Program.

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side the membership of an organization, who are its beneficiaries or its victims, who are as much concerned with the organization's contributions to, or extractions from, the rest of society as they are with the comforts and conveniences of the organization's own members.

These hypotheses and propositions can be applied to any organization, not merely to a school district and its educational bureaucracy. They are, in fact, the kinds of questions political scientists persistently apply to all kinds of organs of public administration.

Progressive Education and American Progressivism: Felix Adler

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EDITORIAL NOTE. The past decade has witnessed not only a sharp and continuing debate over the merits of progressive education but also a growing interest in what progressive education actually was and what it meant. This is the first of three essays in which Professor Beck delineates some of the major intellectual currents in the movement. The second and third essays will deal with the work of Caroline Pratt and Margaret Naumburg. In the words of the author, "One thesis of this series is that progressivism is an indivisible whole; the history of progressive education, therefore, is not to be separated from the history of American progressivism in general."

Professor Beck, who teaches courses in the history and philosophy of education, recently

edited The Three R's Plus.

PROGRESSIVE education, once an honorific label,1 has become almost a libelous term, and that without sufficient

In his essay "The Progressive Movement in American Education: A Perspective," Harvard Education Review, 27:251-80, Fall, 1957, Lawrence A. Cremin traces the progressive education movement from the series of articles written by Joseph Mayer Rice, and published in The Forum from October, 1892 through June, 1893. Cremin reports the impact of Rice's articles, which Rice intended as a report on the inadequacies of American education and the possibilities of the "progressive school." Rice felt that he is the progressive school of the progressive school of the school of the school of the progressive school of the school of felt that he had found progressive education in any number of spots throughout the country and called on Americans to make it general. Many of those who joined with Rice in finding fault with then-current practices used the term progressive" to describe the education that should prevail.

provocation. Though absurdities have been committed in its name by a few doas-you-please schools, the progressive tradition has a past to which some of the most imaginative educators in the last seventy-five years have contributed. To declare this is tantamount to rejecting the widely held assumption that the progressive movement in education sprang fully developed from the mind of John Dewey. One purpose of this essay is to indicate the weakness in this oversimplification of the progressive tradition.2

Oversimplification neglects a host of important educators-among them Felix Adler. The mischief is compounded by failure to take note of the inclusion of the tradition of progressive education within the general progressivism3 of American culture after Appomattox.

² Cremin argues well against this very oversimplification in the article referred to earlier. Dewey himself nominated Colonel Francis W. Parker as "the father of progressive education," but the fact is that progressive education had no single progenitor. After the Civil War, educators at all levels of schooling hit out at the deadly routine of memorization and recitation of ill-sorted facts taught by poorly prepared teachers.

3 The present series of essays uses the term "progressivism" to connote undertakings in the spirit of reform such as the call of Jacob Riis and Jane Addams for the extirpation of slums; Upton Sinclair's exposures of the meat-packing industry; and the muckrakers' demand for the end of the machinations of "malefactors of If it should prove possible to reveal a genuine connection between progressive education and the progressivism of the culture at the time, the demonstration would prompt the suggestion that any blanket repudiation of progressive education serves to dismiss summarily the social philosophy and personal commitment of many progressives, Ralph Waldo Emerson and John Dewey among them.

There are many who will reject the liberalism of the progressive movement and the liberalism entailed in progressive education. When philosophically rigorous their stand is to be honored. There is no quarrel here with them; they do not isolate progressive education as an aberration of educationists. Many thoughtful Americans have accepted the liberal philosophy of progressivism as their own. Apparently, among these progressives in political or social philosophy there are those who do not know that grappled to the progressive tradition by the firmest associations is the history of progressive education. If progressive education is repudiated, progressivism as a whole is diminished. Liberals are challenged to think of this while they review the following bit of heretofore neglected history of progressive education.

It is a history that immediately recalls the Workingman's School (later the Ethical Culture Schools) of Felix Adler. Adler need yield to no one, not even John Dewey, as a leader of American progressivism from 1875 to 1914. His educational trail blazing is certainly the

great wealth," or venality in local, state, and national politics. On many fronts there was a cry for reform. Some of the progressives chose education as their chief instrument of reform; others selected the clearance of slums, the provision of settlement houses, or the improvement of politics as their special effort. Many of the latter had a "minor" interest in education that went along with their "major" interest in reform.

clearest exemplification of what American progressive thought meant in progressive education, 1875-1940. All of its varied elements come to the fore in Adler's crusade to save the "perishing classes," not by revolution or socialism, but by education. In the last quarter of the nineteenth century he carried the torch for what historians record as the old "religion of humanity." The first "minister" of this humanistic religion was the Sage of Concord, Ralph Waldo Emerson.

11

We first meet Felix Adler in 1878 as he puts his "religion of humanity" to work in the slums of New York City. With a friend, Alfred R. Wolff, young Adler walked through New York's poorest districts distributing handbills that announced the opening of a "free kindergarten," the first in the city. The "free kindergarten" was a concrete step taken in the direction that had been pointed out by Emerson's friend, Francis Ellingwood Abbot, who had singled out education as "the practical program which will transform the hope of progress into a reality...."5

The kindergarten opened, using the facilities of the old Wendel Dance Hall on West 64th Street. Eight children appeared on the first day, but within the year eighty children were attending. In 1880 an elementary school, significantly named the Workingman's School was added. For fifteen years the Workingman's School continued as a unique insti-

For a survey of the "religion of humanity" at work see Ralph Henry Gabriel, The Course of American Democratic Thought (New York: Ronald Press Company, 1940), Chapter 16.

⁶ Mabel R. Goodlander, The First Sorty Years (New York: The Ethical Culture Society, 1938), Foreword, p. iii.

tution and was the most important, if not the only incursion of progressive thought into the American classroom.

Financial support for the Free Kindergarten in 1878 and for the Workingman's School in 1880 came not directly from Adler, but from The Ethical Culture Society of which he was president, and whose very name marks it as typically progressive. On the fiftieth anniversary of The Ethical Culture Society Adler harked back to its founding in 1876. He said: "The impulse that led originally to the formation of Ethical Societies sprang from the profound feeling that the life of man needs to be consecrated. . . . "7 The consecration was to the service of humanity, a service whose form was being pointed out by the close friend of both Ralph Waldo Emerson and Felix Adler—the redoubtable Octavius Brooks Frothingham, first president of the Free Religious Association. This message of service was Frothingham's, but not his alone. It was the way of all American progressives after 1875 and before 1914. These progressives, including Adler, remembered the Panic of 1873, touched off by the failure of Jay Gould and Company. Was socialism, was revolution the way out? No, was the progressive reply, and The Ethical Culture Society pledged itself to support its leader, Felix Adler, and the Workingman's School devoted to "industrial education."

"Industrial education" was a new phrase in 1878. Americans had been introduced to "manual training" or "sloyd" only two years before at the Centennial Exposition in Philadelphia.8 Adler was an

Felix Adler, The Fiftieth Anniversary of the Ethical Movement: 1876-1926 (New York:

"advanced" thinker who appreciated and accepted the idea that manual or industrial training could demand thought and perseverance and could even challenge one's feeling for design.9 He was certain, he told The Ethical Culture Society, that industrial education could increase the self-respect of blue-collar workers by giving, simultaneously, skills of mind and hand.10 In espousing this broad concept

ten "occupations" through which little children were to learn of their physical environment and of the "spiritual world." These occupations were thought of by Froebel, by Cygnacus, and by Salomon as activities that were properly a part of liberal or general education and not designed merely to increase vocational skill prepar-

atory to taking a job in trade.

In an early brochure which discusses the work of the Workingman's School, Adler described his interpretation of industrial education. "We lend ... an entirely new import to the method of industrial education in the school. We are seeking to apply the principle which ought to be at the foundation of every modern scheme of education; namely, that, as experiment conjoined with observation is necessary to the discovery of truth, so object-creating must supplement object-teaching in that re-discovery of truth, which it is the purpose of all education to faciliate. Therefore, work instruction is not something outside the regular instruction, it is an organic part of the regular instruction. It becomes the means of making the hand a wise and cunning hand by putting more brain into it. But, on the other hand, it also makes the brain a clear and vigorous and enlightened brain, by giving it the salutary correction of the demonstrations of the hand." Felix Adler, "The Workingman's School and Free Kindergarten," Reports and Announcements, 1879-1906, p. 14.

10 Industrial education was not to be job training. Adler was firm and clear on this point. "We do not propose to give our pupils an aptitude for any particular trade. . . . We would consider that a retrograde step rather than a step in advance, if we were to prevent these young lads and little girls from spending even a few years in gaining knowledge, without reference to the pitiable necessities of their after-lives. . ." Felix Adler, "A New Experiment in Education," reprinted from *The Princeton* Review, 1882 or 1883, and originally printed in the Second and Third Annual Reports of the Workingman's School, January 1881-January

1882, pp. 13-14.

D. Appleton and Company, 1926), p. 4.

Solution Salomon had introduced sloyd to Sweden, borrowing it from the Finn, Uno Cygnacus, who had been a student of Froebel, originator of the kindergarten and the kindergar-

of industrial-general education for children of workingmen, Adler brought together the ideals of social reform found in American progressivism and the novel idea that manual education could be part of a superior general education.¹¹ In 1880 this was a boldly progressive move.

Adler's ambitions for the Workingman's School and its program of industrial education far outran the performance of the untrained staff. The first outlined course of hand work is disappointingly formal. The smallest children apparently worked with "irregular oblong plaques of clay." As their first "exercise" the children learned to draw lines with the aid of a ruler and to draw squares and triangles, which were then cut out of the clay. A degree of realism entered the work of the third grade which, while fashioning prisms and cubes in cardboard and clay, also made cardboard boxes and book covers. "This was followed by work in thin wood, making a round and then an oval photograph frame. And so on through the grades in the use of wood, wire and metal with a chance to make a wine glass, a bootjack, a stool, a little truck..." 12

In the upper grades the record of work hints at increased opportunities for in-

11 Felix Adler's pioneering appreciation of manual education has gone unnoted. It is to be remembered that Calvin Woodward, properly thought of as the first important expositor of manual training as general education, did not publish his Manual Training in Education until 1890. He had lectured on manual training earlier but hardly before Adler saw its possibilities. Adler did not borrow from Woodward but directly from J. J. Rousseau with whom he agreed that manual training could be "combined organically with the whole scheme of education" and be "made to support and coalesce with all the other studies of the child." In his observations on the use of handwork, Adler anticipated Dewey and brought Rousseau's thought forward to the nineteenth cen-

12 Goodlander, op. cit., p. 14.

terest in "realistic" ventures and exercises that would invite imagination. Girls in those grades learned to sew, embroider, trim hats, and draft patterns for the clothes they made. Their male classmates made joints and studied strains in wood, and worked with metal. "They cast and worked in metal and in the eighth grade constructed a small steam engine, or at least a cylinder." The models used were standardized and numbered, as in sloyd, but the boys drew their own designs and patterns.

The record is not detailed enough to tell whether the construction of that "small steam engine or at least a cylinder" had meaning for young people unfamiliar with the empirical and experimental methods. It may have; scarcely any school at the time would have had students at work making some bit of mechanism that illustrated such general physical principles as the relation of the volume of gas to pressure and temperature. Of course it was in the study of these phenomena of gases that the machine of cylinder was built.

Fine arts and industrial education could have been combined, but actually were not in the Workingman's School. In mechanical drawing there were only meager offerings in design, modeling, and free hand drawing, the latter chiefly from casts—"conventionalized leaf and vase forms first, and for more advanced classes, heads and animals." Doubtless this was better than the stereotyped formal drawing in the conventional public school but it fell short of turning mechanical drawing to an esthetic end consonant with general education.

The program of the Workingman's School improved after the turn of the century. Its name had been changed the the Ethical Culture School, reflecting the fact that it was no longer a school de-

signed exclusively for the children of workingmen, but a school for those who felt themselves allied with the objectives of The Ethical Culture Society. Adler had come to an important decision. If his ethical philosophy was to endure beyond his own lifetime, there would have to be leaders of reform educated to their mission. To that end a school with an educational philosophy coordinate with Adler's ethical philosophy was needed.

To understand the school and its philosophy—the philosophy of education most clearly consistent with the general philosophy of American progressivism prior to World War I—one must come to know Adler in terms of the "religion of humanity." He was one of the very best known "ministers" of that secular religion, having succeeded to the presidency of the Free Religious Association when Frothingham relinquished that office.

III

In the decade immediately following Lee's surrender appeared a movement which combined the various liberalisms of the age. To describe it some of its leaders used the phrase "religion of humanity." It was made up of militant young humanists who, after 1865, were convinced that organized Christiania tianity had become in the United States the chief enemy of freedom . . . the new liberals were devotees of science . . . for them science was a tool with which humanists could build a new society. But, for this task, they thought more than science is required. They saw values in the old religion. Out of faith comes that inspiration which at its best causes the individual to spend his energies to the uttermost.13

"Religion of humanity" was August Comte's phrase, but Frothingham, who used it as the title of his book published in 1872, was not limited to the positivistic denial of theism and the embrace of

scientism. Orthodox Christian theology it did oppose, but the opposition, even when voiced by Robert Green Ingersoll, was intended to permit men to use their intelligence freely in combatting on the one hand the misery and vice of poverty, and on the other the twin materialistic gospels of wealth and success.

No subscriber to the religion of humanity went as far as Ingersoll in undercutting the logical defenses of theology. Not even Andrew D. White, in his study A History of the Warfare of Science with Theology in Christendom, carried the attack more vigorously, though he wrote in self-defense against the Protestant orthodoxy that had beset the nonsectarian college he and Ezra Cornell had established at Ithaca, New York. Such denegation of free thought as that evidenced in the attacks on Cornell provoked Ingersoll. His battlefield, like that of almost all those who rode under the banner of the religion of humanity, was the lecture platform. From the podium he spoke in favor of science, not as something to be enjoyed esthetically, as knowledge for the sake of knowledge, but for the service science and technology can render by substituting machines for toiling man and plenty for want.14

This religion of humanity that had Ingersoll as its most radical spokesman emerged in the United States immediately after the war between the states. Although it crystallized under the aegis of Ralph Waldo Emerson, the Sage of Concord was old when the Free Religious Association had its inaugural meet-

14 "Science," he stated, "makes it possible for man to be a social engineer. . . . We invent; we take advantage of the forces of nature; we enslave the winds and waves; we put shackles upon the unseen powers and chain the energy that wheels the world. These slaves should release from bondage all the children of men." Gabriel, op. cit., p. 182.

¹³ Gabriel, *op. cit.*, pp. 174-75.

ing, May 30, 1867. Emerson presided at the meeting but the first president of the Association was the younger Frothingham, who continued as president until 1877, when he was succeeded by his young humanist friend from New York, Felix Adler. Although only twenty-six Adler was already president of another humanist association, the year-old Ethical Culture Society.

These were the days of the Positivist Society and the short-lived Society of Humanity. More idealistic and less positivistic was the Union for the Higher Life, which Adler and a few of his friends had founded in the hope of providing fellowship in the pursuit of their high ethical purposes. Any number of fraternal organizations came into being after the Panic of 1873. Farmers and laborers together felt the insecurity of America in its transition from an agricultural and rural country to one of industrialization and urbanization.15 The Patrons of Husbandry (the Grange) made its debut in 1867 and the Knights of Labor in the early 1870's. While the Grange was rural and the Knights of Labor urban, both expressed a deep-running humanism-sophisticated in the Free Religious Association, Adler's Ethical Culture Society, or the Positivist Society and naïve in the Grange and the Knights of Labor. Naïve it was, but no less idealistic. The Grange and the Knights enjoyed a "genuine idealistic humanism" of the common people. "The new humanism owed little to the theorists of the religion of humanity, yet, as it expressed itself among the farmers and the wage earners it translated into social action the ideals of Octavius Brooks Frothingham and Robert Ingersoll."16

All the hopes of the young humanists

were symbolized in the doctrines of the Free Religious Association. In it was concentrated the humanism which outlived the Association and proved the matrix of later progressivism. Gabriel, writing not of the religion of humanity, but of progressivism which comes a decade later, has made clear this connection between the older humanism and the later progressivism. "The immediate precursor of progressivism was the religion of humanity."17 It was a religion, not a science. The humanists were dedicated, though not in conventional creeds. They preached, though the sermons were called lectures. Whitman, great friend of Ingersoll, was their poet.

I write not hymns
I see the building of churches
If I build God a church it shall be a church to men and women.
If I write hymns they shall be all to men and women
If I become a devotee, it shall be to men and women.

If I become a devotee, it shall be to men and women.

Frothingham was not irreligious, nor was Ingersoll though he was an atheist. The Free Religious Association was humanist and devoutly idealistic.

Freedom and unity were its watchwords; freedom from bondage of sect and creed, from the provincialism even of Christianity itself; the unity of all the living world religions into a universal religion of humanity.

... It stood for freedom of thought and of inquiry. It urged an untrammeled search for the principles which should govern the new religion and enable it one day to unite the peoples of the world into an universal brotherhood.¹⁹

¹⁵ Ibid., p. 190.

¹⁶ *Ibid.*, p. 188.

¹⁷ Ibid., p. 332.

¹⁸ C. J. Furness, editor, Walt Whitman's Workshop, 1928, p. 43. Whitman did not publish the poem during his lifetime. Gabriel quotes it in The Course of American Democratic Thought, p. 183.

¹⁹ Gabriel, op. cit., p. 176.

These were the ideals that had become so well identified with the young Felix Adler that he was elected president of the Association in 1877. Adler had no inkling that this was to be the path his ethical philosophy would take. When the Association was inaugurated he was an undergraduate at Columbia University.

IV

The year 1867 was a fateful one for the religion of humanity. In Boston, Emerson presided at the birth of the Free Religious Association. At Ithaca, Ezra Cornell and Andrew D. White opened a college unbound by any sectarian alliance. Unsuccessfully, Emerson had sponsored Francis Ellingwood Abbot for the chair of philosophy at Cornell. It had been Emerson's hope that someone bespeaking the humanism of the religion of humanity would be the philosopher of the new college. But Abbot was not offered the post. Perhaps Cornell and White felt that Abbot was too clearly defined as the spokesman of a religion, even though it was nonsectarian.

Although Emerson did not succeed in placing a teacher of the religion of humanity in the department of philosophy at Cornell, one of its exponents did receive an appointment to Cornell. Felix Adler was called there in 1873 to teach Religious History and Literature. At the time of the appointment he was not identified with the philosophy of the Free Religious Association.

When White invited him to Ithaca, Adler was fresh from three years of study in Germany which had culminated in a doctor's degree from the University of Heidelberg. The trek to Germany for graduate study had begun, and Adler was in its van.

What White did not know was that he

had engaged a young man who would be able to assist him in his reply to the orthodox ministry so critical of his "Godless college."20 The practice Adler had in defending Cornell later served him well. The Ethical Culture Society, for whose direction he left Cornell in 1876, was subject to identical criticism and from the same quarters.21 Fortunately the years in Germany had armed him philosophically. He had known the theological criticisms of humanism even as an undergraduate at Columbia, where he had reacted against ". . . the narrow theology of the lectures on Christian evidence. . . . "22 The doors closed by orthodox professors at Columbia were opened in Germany. At the University of Berlin, to which he was to return as a distinguished visiting professor, he sat in on lectures by humanist students of the history and philosophy of religion-Zeller, Duhring, Steinthal, Bonitz, and Herman Cohen. The door was open, and Felix Adler, born on August 13, 1851, in Alzey, Germany, son of a German rabbi, went on to become a leader in American humanism, perhaps the only one of the post-Appomattox humanists to splice

20 Adler agreed with White that theology could not win against science in competition for empirical knowledge. In his first book, prepared while still at Cornell, Adler wrote: "The old religions and science are at war. With pitiless consistency science directs its attacks upon their vulnerable positions. The conception of inexorable laws subverts the testimony of miracles, the fond belief in truths revealed fails to withstand the searching analysis of historical criticism; the battle of science is yet far from being won, but from our standpoint the issue can not appear doubtful." Felix Adler, Creed and Deed (New York: G. P. Putnam's Sons,

1877), p. 03.
21 Felix Adler, The Fiftieth Anniversary of the Ethical Movement: 1876-1926 (New York: D. Appleton and Company, 1926), p. 14.
22 Felix Adler, An Ethical Philosophy of Life (New York: D. Appleton and Company, 1918).

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into his own ethical philosophy the earlier humanism of the religion of humanity with the later humanism of the "social gospel"23 and progressivism. He drew on both for a philosophy of education that undergirded one of the first American "progressive" schools.

In 1876, when he assumed the directorship of the Ethical Culture Association, Adler was twenty-five. The next year, without giving up the direction of The Ethical Culture Society, he became president of the Free Religious Association. Though neither group numbered many, their members were among the avantgarde intellectuals of the day.24 In Lyric Hall, on Sixth Avenue between 40th and 41st Streets, Frothingham delivered his Sunday lectures to audiences that numbered between 600 and 900. Occasionally there were visiting lecturers. Adler was such a visitor, delivering six lectures on the "Great Religions."

The Ethical Culture Society, which Adler founded in 1876 and which has endured to be the sole survivor of the original American humanism, gradually supplanted the Free Religious Association as the agent of many American humanists-and humanitarians.

Humanism and humanitarianism worked together into an ethical philosophy. The development of this philosophy, the first comprehensive, consistent ethical philosophy evolved in the United States, has been traced step by step by Adler in his autobiography.

23 The "social gospel" movement saw such religious leaders as Jesse H. Jones and Washington Gladden take an interest in the working conditions of labor. Achieving for labor the eight-hour day was one of their prime objectives. Perhaps the spirit of the "social gospel" can best be found in Gladden's Being a Christian (1876).

24 Gabriel, op. cit., pp. 175-176.

Inasmuch as this view was thoroughly articulated in comprehensive form by the time Adler came to the leadership of both The Ethical Culture Society and the Free Religious Association, its review provides a glimpse into both the advanced humanitarian-humanistic thought in the Western world before 1900 and the progress of a sensitive man from an orthodox theology to a personal and unique expression of humanism attractive enough to command the dedication of men of strong mind and independent conscience.

The steps Adler took in his philosophical development, while they carried him further and further from his boyhood Judaism, never led him to turn his back on what he later dubbed "the ethical message of Israel." As a consequence, when he exchanged Judaism for humanism he did not spend the rest of his life fighting a childhood tyranny. He was able to take up the work of a humanist education for a humane way of life. From the Hebraic thought of his parents he learned belief in a fundamental moral law. "The ethical message of Israel," he wrote, "is universalistic. It is founded on the conviction that there is a moral nature in every human being, and that the moral nature is a spiritual nature. "25 This was the first and the fundamental building block of his ethical philosophy.

In Germany the theological argument of the world's religions dropped away from Adler but the acceptance of the ideas of a feet ideas of a fundamental (universal) moral law and the spiritual nature of every man were reinforced by the study of the manuel Kant. From Kant, who was the major figure in his graduate work, he learned and took to heart the "categorical imperation" imperative"—treat men as ends and never

²⁵ Adler, An Ethical Philosophy of Life, 20. p. 20.

as means merely. Recast in his own spiritual (ethical) terms the Kantian imperative became the command of Adler's conscience: "Treat every man as a spiritual means to thine own spiritual end and conversely . . . treat the extent and the manner in which we are to use one another as means being determined by the criterion that our exchange of services shall conduce to the attainment of each other's ends as ethical beings conjointly." ²⁶ What Adler had done with the Kantian imperative was to rephrase it in terms of a social conscience.

There was a year or two in that period of graduate work in which Kant had unrivaled influence on Adler but there came a time when the Kantian philosophy struck Adler as imperfect. Its lack of concern for mutuality, for social responsibility, left Adler unsatisfied. So, too, did Emerson,²⁷ who, like Kant, had first appealed in terms of loyalty to the principle of the inviolability of individual men. And as with Kant, the lack Adler found in Emerson's humanism was simply a lack of concern for social injustice and such social pathology as the urban slum.

Had Adler continued his studies in the United States rather than in Germany he, no more than Emerson or Frothingham, would have seen poverty and social inequity as foes of progress, more formidable than religious orthodoxy. In Germany the criticisms of socialists, prominently Marxian, preceded their American counterpart by at least a generation. It was Adler who was chairman of the New York meeting that introduced Henry

²⁶ Ibid., p. 139.

Life is devoted to Emerson. There Adler recalls the impact of Emerson's thought. "The value of Emerson's teaching to me . . . consisted in the exalted view he takes of the self . . . Emerson taught that immediate experience of the ship." Ibid., p. 27.

George to New York. By then socialism was old hat to Adler, and an ill-fitting old hat at that. No longer did it have the power to thrill him that it had when, still a graduate student in Germany, he first met "social problems" in Friedrich Albert Lange's Die Arbeitfrage (The Labor Problem). "This book," Adler wrote, "proved epoch-making in my life." 28

Apparently he had been unconsciously seeking for a goal to which his own life might be directed. Lange's little book on the unhappy lot of the industrial proletariat proved the catalyst Adler needed to formulate his dedication.

I would go out as the minister of a new religious evangel. Instead of preaching the individual God, I was to stir men up to enact the Moral Law. . . . I was to go out to help the conscience of the wealthy, the advantaged, the educated classes, to a sense of their guilt in violating the human personality of the laborer.²⁹

Adler spoke in Standard Hall, May 15, 1876. His Ethical Culture Society was to be endorsed as a result of that talk. In Philadelphia the Centennial Exposition was underway and Americans there saw their first examples of sloyd, the form of manual training that had just been adopted in Sweden to take the place of the older vocational instruction in the handcrafts. Despite the great exposition and the fact that 1876 was the centennial anniversary of the Declaration of American Independence, the country was not euphoric. Adler's audience remembered the Panic of 1873. Farm prices had been falling since 1865 and wages had slipped almost to that desperate point where the railroad workers felt that a strike was their only resort. Still ahead were the terrible railroad strikes of 1877, climax-

²⁸ Adler, An Ethical Philosophy of Life, p. 10. 29 Ibid., p. 12.

ing in the battle of the Pittsburgh round-houses and the President's summons of the Army.

Those who had come to hear Adler at the meeting held in Standard Hall agreed to the formation of The Ethical Culture Society and immediately set to work to implement its ethical ideal by underwriting the Free Kindergarten and, later, the Workingman's School.

VI

When the program of the Working-man's School actually caught up with the aspirations Adler held for it, it changed from being a workingman's school and became a school for children of members of The Ethical Culture Society—children whom Adler hoped would advance the reform of society. As though to symbolize the change, the school was moved to Central Park West, a much more attractive neighborhood.³⁰

The change in name, location, and student body meant that Adler's ethical philosophy was to have a new trial. The fifteen years of the Workingman's School had not been easy for reasons that would not be difficut to adduce. After 1895 there were more facilities and an enlarged staff of adequately prepared teachers. The students came from homes predominantly upper-middle class, and were highly tutored.³¹

³⁰ The change in name was made in 1895, but it took some time to move the school into its new quarters on Central Park West.

31 Art and industrial art changed the most. An artist, Douglas Volk, was engaged. This was a departure from common practice. Volk steered the art away from copy work—drawing of "conventionalized leaf and vase forms . . .," using casts as models—to greater reliance on individual (student) imagination in several media. "For the younger children a new opportunity lay in the making of simple pottery after primitive fashion." Design still occupied a large place in the work of older students, but a new emphasis was laid upon its use. "The art of

Between 1895 and 1909, Adler had become aware of the first stirrings in the United States of the New Education, with its call for greater attention to the natural interests of students. It held little charm for him. An announcement to parents of students in the Ethical Culture School of 1902 took note of the New Education and registered Adler's fear that it was not sufficiently rigorous. "The New Education," he wrote the parents, some of whom may have hoped that the Ethical Culture School might learn from the New Education, "in converting the ways of knowledge into ways of pleasantness, is in danger of losing the advantages of that sturdy discipline of hard work and willingness to perform uninviting drudgery which was the salient feature of older methods."32

The first major revision of the curriculum was made in the primary grades in 1909.³³

With little differentiation of one subject from another the study of home life, primitive peoples, and pioneer ways of living provided material for widening children's interests and encouraging creative work.

drawing," Mr. Volk stated, "is acquired more of less incidentally while making studies form to apply to some object." Goodlander, op. cit., p. 27.

A new teacher of "work instruction" or industrial education, A. A. Richards, undertook the revamping of the shops. "The earlies self-contained sequence in the lower grades (the progression students conventionally made in reproducing the sloyd models (gave way the making of objects of interest to children objects in which the human implications were emphasized. Other aspects of manual work ward also developing. Weaving and basketry and been added to the sewing and millinery, when the move to Central Park West possible a special laboratory, food study cooking were introduced." Loc. cit.

32 Goodlander, op. cit., p. 29.
33 Miss Goodlander led in the revision of the "lower school" and many of the innovations were worked out under her guidance.

Although the listing of a "definite body of facts" to be "motivated" by the special interests, was most explicit, "the beginning of every study was the point at which it most clearly touched the child's life and interest."34

If the special interest of a primary grade was with pioneers or Indians, the children, in their shop and art work, made appropriate pottery, wove, built miniature log cabins, or cooked as did

the pioneers or Indians.35

This was about as "progressive" as the Ethical Culture School course of study became prior to 1918. If innovations of a progressive type meant greater attention to the individual interests of the students, there was almost none in the Ethical Culture School before World War I. Art would have made a place for individual interests if any field of study did. It did not. When the children studied American Indians and wove Indian designs they had little chance to demonstrate initiative.

There were many alternative choices as between a striped rug and a plain one but accepted color combinations were considered essential; there was a choice between a pin tray or a box for mother's Christmas present but models were provided for both, and standards of work were set. It took another decade to recognize the child's ability to originate his own models and to express his own thoughts, in the form which most appealed to him.36

In 1918, when the Progressive Education Association was about to come into existence, an "experimental class" was initiated in the primary grades. A single teacher was given responsibility for the class⁸⁷ and was to remain with it for four

36 Loc. cit.

years. This teacher permitted the children a large measure of freedom in beginning and directing their own activities. With a great variety of materials on hand, the children had ample opportunity to follow their own interests. This pattern, of course, was close to the individualization along lines of children's interests, a form of instruction that has customarily been thought of as "progres-

As the activities (sometimes called "projects") of the class developed, the three R's were introduced and practiced.38 But more than the three R's was to be learned. "The initial enthusiasm may be for making trains, aeroplanes, boats, or play houses, for playing Indian or learning about the life of New York. But, in any case, under wise guidance, children's curiosity leads them to the discovery of many facts about the lives of different peoples, both past and present. Of particular interest are the processes which related to transportation, food, clothing, shelter, and the like." 39 In this quotation one finds what did become common "progressive" schooling-permitting students, under guidance to "discover" facts in a Rousseauan fashion.

"Progressive" steps were taken first in the primary grades, then in the upper elementary and last of all-and not until the 1930's—in the high school. To quote Miss Goodlander again, "In the development of the upper elementary grades a certain orderly sequence of knowledge has always been maintained. The major

39 Goodlander, op. cit., p. 50.

⁸⁴ Goodlander, op. cit., p. 39. 35 Ibid., p. 30.

This practice lately has been adopted by Russian elementary schools.

^{88 &}quot;Readiness" for learning was also tried after 1918. Rather than initiating reading at once at the beginning of the first grade, the teacher of the experimental class waited until the students "wanted to know" or until arithmetic or writing was called for by the work itself that the child was doing. Here again, there was an illustration of what became known as "progressive practice."

interest for each grade is found in the social studies, in which history, geography, and civics are closely integrated and involve other subjects when needed."40 Miss Goodlander was not writing of the years of World War I. The integration to which she has reference came later. Though the record is not clear, it probably was not much before 1932 that the upper elementary grades and high school division of the Ethical Culture Schools envisaged broad topics that might eventuate in a great variety of ways, depending on the group planning the work.41

The move to Central Park West signaled alteration of Adler's tactics in effecting reconstruction of the poor. The Workingman's School was designed to build the strength of each poor boy and girl educated in it. The Ethical Culture School, whose students were children of members of The Ethical Culture Society and, perforce, were not poor, was to be infused with the ideals of Ethical Culture. In a word, they were to be reformers, or, as Adler came to call them, "leaders." The leaders, ostensibly, would be middle-class men and women devoted to the improvement of the "perishing classes." It was as though Adler had returned to the years 1875-1880, when he was a "minister" of the Social Gospel.

Certainly Adler did not step back from his position vis-à-vis either the Social Gospel or the Religion of Humanity. The ethical purpose of life, of education, was the point d'appui of his address at the laying of the cornerstone for the new school at Central Park West. Speaking to the members of the Society at hand for the ceremony, he said: "We wish to make our students servants to humanity." Later in the same address, Adler defined the ideal of the school not as "... the adaptation of the individual to the existing social environment. . . " Rather it was, ". . . the development of persons who will be competent to change their environment to greater conformity with moral ideas; that is, to put it boldly, to train reformers."42

The instrumentation of the aim and ideal first was by "direct moral instruction." When the curriculum and teaching methods shifted to require and permit students to come to ethical decisions on the basis of their own reflection and study, the direct moral instruction yielded to experiences with philanthropy, and with any number of projects for improvement of the city. In a word, in some of its program, the school changed from the more traditional pattern of having the teachers responsible for imparting all that students were to learn. The change was toward what came to be called "progressive" practice. This last required both the instructor's cognizance of student curioris dent curiosity and guidance of independent student ent student work which entailed increasing individual responsibility.

The change here reported was gradual, he record is The record is not clear nor is it definite in pinpointing. in pinpointing the time when the Practice of direct tice of direct moral instruction was rejected as a jected as a means of winning personal commitment commitment to an ethical way of the Guesswork places the cross-over in the 1920's. By the time of the depression, which and which quickened the social conscience of many 11 say of many, Miss Goodlander could say with conf. 1 with confidence that:

⁴⁰ Ibid., pp. 50-51.

⁴¹ To take cognizance of the group work and the individual experimentation and inquiry of students would be to borrow from practice designed in the years that lay ahead of the boundary of this essay. Goodlander, op. cit., p. 38.

⁴² Ibid., pp. 41-42.

Every effort is made to develop the ethical implications in issues which arise in history, in current events, or in active projects of the class, as well as in the behavior problems usual at certain ages. For example, a sixth-grade class which publishes a newspaper may be interested in journalistic ethics and in the influence on American life of a great journalist like William Loyd Garrison. In the eighth grade the American history brings up for discussion questions of religious freedom, of tolerance for people who are different and of the ideal of democracy. In the upper school, the pupils are earnest in their consideration of the problems of political and economic institutions, of the home, family and marriage."43

43 Ibid., pp. 56-57.

CONCLUSION

In the years in which the Ethical Culture Schools experienced their most striking alteration in course of study and methods, though not of aim, the Progressive Era had faded into a mélange of movements sparring for position in the cultural flux of the 1920's and 1930's. Almost lost from view was the older progressive ethic with which Ethical Culture should be associated. A new wing of progressivism emerged to champion esthetic sensibility and "creative self-expression." Attention to personal esthetic response was much less socially conscious than Ethical Culture had been.

Some Characteristics of the American Teacher*

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In the course of an investigation of the educational status of the American people as revealed in the 1950 Census it became possible for the authors to secure data with respect to members of the teaching profession as recorded in the occupational inquiries answered by all those in the labor force. Some of these data are presented here.

Teachers fall into the general occupational category of "professional and other related services." Under this rubric 48 different occupations are listed. All but two of these include persons engaged in some form of educational activity, usually not in schools. In 1950, out of a labor force of 55 million persons, 2 million were classified under educational services. Teachers of all types constituted almost half of the entire employed labor

* This article may be identified as publication A-255 of the Bureau of Applied Social Research, Columbia University. The data are drawn from a special tabulation by the Bureau of Census, United States Department of Commerce.

Professors Wayland and Brunner are also the authors of *The Educational Characteristics of the American People*, which is published by the Bureau of Applied Social Research. It is obtainable through the Bureau of Publications, Teachers College, Columbia University, at \$3 per copy.

force in the industrial category "professional and related services." This article, however, is concerned only with the approximately 1,100,000 persons who were school teachers.

The available data are presented in terms of key variables such as sex, geographic region and urban-rural location, color, and income. Some attention is paid to teachers in public and private school systems, though the data for the latter, for a variety of reasons, are less satisfactory than for the former.

URBAN-RURAL DISTRIBUTION

Despite the richer curricula and greater number of services of city schools as contrasted with rural, the proportion of urban and rural teachers was in 1950 very close to the urban-rural distribution of the total population. Cities employed 65.6 per cent of America's school teachers and had 64 per cent of the population. The rest were rural. However, since 43 per cent of the nation's children five to seventeen years of age enrolled in school in 1950 lived in rural areas, it is obvious that the ratio of pupils to teachers, nationally speaking, was higher in rural than in urban America. The dis-

tribution of teachers in relation to population and school enrollment among the states and Census divisions shows greater variation. Space prevents detailing the data which merely suggest the well-known fact that some areas are educationally disadvantaged compared with others.

twenty-nine age group, 64.1 per cent of the teachers were female; in the fifty to fifty-five age group, 81.5 per cent were female. Among all teachers 75.4 per cent were female.

2. The male and female groups have a similar occupational mortality pattern until about the middle thirties. At that

TABLE 1

DISTRIBUTION OF TEACHERS FOR THE UNITED STATES BY RACE AND SEX: 1950

DISTRIBUTION	TOTAL		MALE		FEMALE	
RACE -	Number	Per cent	Number	Per cent	Number	Per cent
UNITED STATES	1,082,935 994,940 87,995	100 92.0 8.1	266,665 248,025 18,640	93.0 7.0	816,270 746,915 69,355	91.5 8.5
Urban White Nonwhite	711,045 650,955 60,090	65.6 60.1 5.5	163,575 151,120 12,455	61.3 56.6 4.7	547,470 499,835 47,635	67.1 61.2 5.8
Rural. White Nonwhite	371,890 343,985 27,905	34·3 31.8 2.5	103,090 96,905 6,185	38.6 36.3 2.3	268,800 247,080 21,720	32.9 30.2 2.7

The sex ratio shown in Table 1 is of interest. Just under one-fourth of the teachers were males. Between 1910 and 1930 the proportion of males among school teachers dropped from about 21 per cent to about 16 per cent. The recovery in the next twenty years-during the latter half of which period the number of teachers greatly increased, and indeed almost doubled from 1910 to 1950 -was not in line with expectations and suggests some amendment of the unflattering stereotype of the American teacher as an unmarried woman in her late thirties or older, who leads a rather restricted life on a modest income.

Age and Sex. The age-sex pyramids reveal several important characteristics of teachers:

I. The high ratio of female teachers in the total population is strongly influenced by the differential survival rate of males and females. In the twenty-five to

point, the males continue to decline at a rather sharp rate, while the female group begins to increase. While this difference may be due in part to the different ratios of entry of men and women into the teaching profession at various times in the past, the difference in the age distribution is largely due to the temporary loss of females to teaching during the early years of marriage and their subsequent return, as against permanent loss of male teachers to other occupations.

3. The public and private school teachers are characterized by the same basic patterns of survival, but male private teachers are more heavily concentrated in the younger years and decline in number at a much sharper rate. Some of the private school losses may be to public school teaching, which has a somewhat higher median income.

4. Among nonwhite teachers, the occupational mortality rate is not so high as among the white teachers. Above age forty-five there is a sharp drop in proportion. With the limited opportunities for Negroes, the pull away of the profession is not so strong as for other groups. The sharp decline in the older age group is in part a reflection of the relatively small number of Negro teachers working prior to 1925, when this age group would normally have entered the teaching profession.

A higher proportion of private school teachers were sixty-five and over than was true for public school teachers.

6. In comparison with the occupational group of which teachers are a part—professional, technical, and kindred workers—the age distribution of teachers differs primarily in the proportion in the population who are fifty-five and over. The smaller proportion of teachers in this age bracket is the result in large measure of the relatively larger growth of teaching in the past forty years.

Race. The occupation of teaching is one of the few in which the Negro is represented in numbers approximating his portion of the total population. Over 8 per cent of teachers were nonwhite as compared with about 10 per cent in the total population. These proportions, however, vary for different regions and for public and private schools. Among the 81,000 Negro teachers, women outnumber men 4 to 1. With the relatively limited opportunities for employment of Negro college graduates, teaching is an occupation of particular significance, especially for women. Of the 40,000 southern Negro women college graduates in the professional group about 90 per cent were teachers, as were 12,000 of the 22,000 Negro male college graduates in this occupational group. In the non-South, teaching did not have the same appeal to Negroes of either sex.

In 1950, nearly one-fourth (23.1 per cent) of all female teachers in the South were nonwhite, close to the proportion of the total population who are Negroes. In recent years the out-migration of Negroes has been so much larger than the natural increase that the number of Negro pupils has declined in some states. Coupled with the prospect of desegregation in the schools, which may mean loss of jobs for some Negroes, the outlook for an increase in the number of Negro teachers is not very good.

Nativity and parentage. There is a tendency for boards of education to favor native-born teachers of native parentage. While nearly one-fourth of all persons in the United States twenty-five years of age and over in 1950 were native-born of foreign or mixed parentage, only slightly over one-sixth (17.8 per cent) of the teachers fell into this category, and the more than 10 per cent who were foreign-born were represented by only one-fourth that percentage among the teachers. There are sharp differences among the regions in this particular. Thus over 30 per cent of the teachers in the Northeast were of foreign or mixed parentage, more than ten times the percentage in the South.

Private schools showed far less resistance than public schools to teachers of foreign lineage. About one-fourth of those in the former institutions were of foreign stock and about one-twelfth were foreign-born. Doubtless the influence of the parochial schools is an explanation of this fact, since a high proportion of immigration from Europe, Mexico, and the Caribbean comes from areas where the Catholic faith is predominant.

Region of birth. Field studies have shown that public school teachers tend to find positions within a radius of fifty miles of their homes. In recent years, as the shortage of qualified teachers has grown, recruitment of teachers from a wider area has become more common. Localities with lower salary schedules find themselves outbid. With the exception of the West, each of the geographical regions provides slightly more than 90 per cent of the teachers it needs. In the West the ratio is 50-50, a condition obviously related to the western movement of large numbers of Americans.

Of all teachers, almost two-thirds were born in the North, 28 per cent in the South and 7.6 per cent in the West. Of that half of the West's teachers who were born in other regions, four-fifths came from the North, one-fifth from the South.

Migration. Obviously there are migratory tendencies among teachers despite barriers to interstate movement created by varying patterns of certification, pension arrangements, and curricula. Just under 9 per cent of all teachers moved across county lines in the twelve months preceding the 1950 Census as contrasted with a rate of 6.2 per cent for the total population. The smaller number of male teachers were far more migratory than their women colleagues, the ratios being 12 per cent and 7 per cent respectively. The rate of migration of teachers across county lines was lowest in the Northeast, about one-half the national figure. On the other hand, teachers in private schools showed much greater mobility than those in public systems. In the twelve months prior to the effective date of the last Census, April 1, 1950, onesixth of all private school teachers moved with no difference in rate between the sexes.1

Marital status. The data on marital status all but demolish the image of the typical teacher as a spinster. Just over half the women teachers in 1950 (50.3 per cent) were married and living with their spouses. An additional 11.1 per cent had been married but were widowed, divorced, or separated. The proportion of married women teachers therefore exceeds by a considerable margin the proportion of married women in the entire labor force. It is a tenable inference from the total data that an appreciable number of these married women were former teachers returning to the profession after their children were grown. Among male teachers, more than four out of five were married and living with their wives. Only 2.7 per cent fell in the category of widowed, divorced, or separated.

With respect to marital status there were wide variations by region and color among women teachers. In the South only three in ten were single, in the Northeast almost half. Conversely, in the South almost three in five were married and living with their husbands; the Northeast's proportion slightly exceeded two out of five. In the West and among nonwhites, the proportion of female teachers who had a disrupted marital status was almost one in six, 15.2 per centhalf again as high as in other regions or among white people. In all groups, however, the proportion of women teachers whose marriages had been disrupted was somewhat below that of the total popu-

Education. Since the teacher is a professional worker, he may reasonably be expected to have a high educational status. Educational requirements for state certification have been rising, but with the rapidly expanding school population many persons who have not met the minimum requirements have been given

¹ These data on teacher migration across county lines are not an equivalent of a turnover rate, since there is also a movement in and out of the profession with or without change of residence.

authorization to teach. It is not possible to determine from the data the degree to which those of lower educational attainment are new substandard teachers or older teachers whose experience is judged to compensate for lack of current requirements. Nonetheless the situation as summarized in Table 2 represents considerable improvement over existing conditions of a generation ago.

than their public school colleagues in each regional, color, and sex category.

INCOME

A final item of information about America's million school teachers provided by the Census of 1950 relates to income. Before presenting data on this point several observations are necessary:

1. Because so many teachers in private

TABLE 2

Percentage of Each Sex of Public and Private School Teachers in the United States

Completing Specified Years of Schooling: 1950

Assessment Carroot and	Public		PRIVATE		
Amount of Schooling —	Male	Female	Male	Female	
Less than high school graduation	3.3	2.2	9.4	2.6	
High school, 4 years	3.5	3.9	10.4	9.8	
I to 3 years	11.0 81.2	29.2 63.4	14.0	28.4 57.3	
Not reported		1.3	64.3 1.8	1.9	

It is quite clear that male teachers have had more formal education than females. This is doubtless due to the fact that a preponderance of women teach in elementary schools and men in high schools, where in some states certification requirements are higher. The percentage (85 per cent) of male teachers in the West and Northeast who had had four or more years of college exceeded the percentage in the South by ten points. For women, the West led with 68.2 per cent, very closely followed by the Northeast and the South.

Nonwhite teachers, especially among the men, were comparable to their white colleagues in education. In the South the female nonwhite teachers had a somewhat higher proportion in the belowcollege level. Private school teachers made a significantly poorer record with respect to their educational experience schools are members of religious orders and receive allowances or nonmonetary income, such as free lodging, data on this group will not be presented.

2. Income data perforce refer to the calendar year previous to the Census enumeration. Thus, those teachers who entered the profession for the first time in September would have only four

months' income to report.

3. The top income category, \$10,000 or over, is open-ended. To the extent that there were teachers receiving more than this sum, the reported median incomes would be less than actuality. This limitation applies, of course, to all occupational groups and hence is not serious for those who might wish to compare teachers' incomes with those of other callings.

4. Just as previous sections in this article have shown widely varying charac-

teristics, so the following summarizing measure of the income of teachers conceals important variations with the group. With respect to income even among states these are probably of considerable significance.

5. Since 1949 the compensation of teachers has generally increased, even though inadequately. The data following, therefore, understate the situation. Presumably, however, it will be 1964 or 1965 before detailed occupational data from the 1960 Census become available, and the relationships among the various items are less likely to change than the actual figures of income.

With these qualifications in mind the data may be examined. It is apparent, as might be expected, that age is the most significant single factor affecting income. For males, the median income of teachers age fifty and over was approximately triple that of the group under twenty-five years old. Among women the differential was twofold. The group twenty-five to forty-nine fell in between. The actual medians are as follows:

۸ ۵	INCOME			
Age Under 25	Male	Female		
Under 25 25 to 49 50 and over	\$1500 3500 4100	\$1500 2400 3000		

It is apparent that the discrimination against women in terms of compensation begins after age twenty-five.

Among the regions the West had the highest median incomes at each age level and for both sexes except for women under twenty-five years of age, in which bracket the Northeast had a slight lead. The South lagged at all levels and the unfavorable differential increased with age until for those fifty and above of both sexes it averaged about 20 per cent less than the national median given above.

A natural assumption would be that this lag could be explained by lower salaries paid to Negro teachers in the South. This hypothesis is more tenable in terms of 1949 than 1958, since the compensation of nonwhite teachers in this region has reportedly risen more rapidly than the averages in recent years. Even in 1949 the median income of female nonwhite teachers in the South, who comprise over 90 per cent of all nonwhite teachers in this region, was \$1,782. The median for white females was \$2,172. Despite the changes since 1949 interest in teachers' salaries is sufficiently keen to indicate the distribution in that year as is done in Table 3.

Apart from age and regardless of color, the most influential factor in determining teachers' income is years of schooling

TABLE 3
PERCENTAGE OF WHITE AND NONWHITE PUBLIC SCHOOL TEACHERS IN THE UNITED STATES
IN SELECTED INCOME CATEGORIES: 1949

IN SELECTED	WHITE		Nonwhite	
INCOME IN 1949	Male	Female	Male	Female
Less than \$1500 \$1500-\$2999 \$3000-\$4499 \$4500-\$5999 \$6000 and over Not reported	.9.7 23.2 39.5 18.1	19.8 43.7 26.0 5.7 1.0 3.8	20.0 44.7 25.4 4.9 1.3 3.7	36.6 44.7 12.6 1.5 0.4 4.1

completed. The Census did not include a separate item for graduate training—

of schooling the higher the income tends to be. This is shown in Table 4.

TABLE 4

PERCENTAGE OF PUBLIC SCHOOL TEACHERS IN SPECIFIED INCOME CATEGORIES
BY SEX AND YEARS OF SCHOOLING: 1949

INCOME H	IIGH SCHOOL OR LESS		1-3 YEARS COLLEGE		4 Years or More	
	Male	Female	Male	Female	Male	Female
Less than \$1500	19.8	42.4	18.8	28.7	8.5	16. I
\$1500-\$2999		37 - 4	41.6	52.0	22.I	41.3
\$3000-\$4499		11.5	27.0	14.3	40.9	31.2
\$4500-\$5999		2.4	7.6	2.3	19.2	7.1 0.8
\$6000-\$7499		0.4	I.7	0.2	4 - 5	0.0
\$7,500 and over		0.2	0.7	0.2	2.4	0.4
Not reported		5.7	2.6	2.3	2.4	3.1

something recognized in most salary schedules—hence the relation between education of the teacher and income is incomplete at the upper levels. It is also impossible to cross-tabulate income data by years of teaching experience. Even so, it is clear that, as with the population as a whole, in general the greater the amount

College graduates of both sexes had sharply lower proportions of their numbers in the two lowest income categories, and from two to three times as many, proportionately speaking, in the \$6,000 and over category, despite the fact that teachers with high school education or less were almost certainly older.

Recent Trends in Curriculum Improvement in Egypt*

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PARTICULARLY since the establishment of the Institute of Education (now called the College of Education) at Cairo in 1929, some significant attempts have been made in the field of curriculum improvement. Some of these attempts eventually became pronounced trends or movements, with advocates and followers, while the influence of other attempts did not go beyond the limited circle of those few individuals who were carrying them out. Since these latter individual attempts were too limited in impact to be considered trends, the writer will concern himself here with only those major trends which have had marked influence on Egyptian education in general and on the curriculum in particular.

THE PROJECT MOVEMENT

The Project Method was first applied in Egypt in 1932, in the experimental classes attached to the Institute of Education at Cairo, then later in Kubba Primary School, Farouk Secondary School,

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This article was accepted for publication before the formal creation of the United Arab Republic. Obviously this important political development will have major consequences for some of the problems here discussed. and Orman Primary and Secondary Schools-all of which were under the supervision of the Institute of Education. Prominent in initiation of this movement were Ismail El Kabbani, former Dean of the Institute of Education and former Minister of Education; Abd El Aziz El Koussy, former Dean of the Institute and now Technical Adviser of the Ministry of Education; and M. Fuad Galal, former Professor of Education and former Minister of Social Affairs and National Guidance. Through their teachings and writings and through efforts of other colleagues and numerous students, the method was gradually adopted by different schools, especially on the kindergarten and primary levels.

However, multiple factors caused the movement to slow noticeably and the method to lose its former vigor and popularity. Among these factors is the fact that it failed to substitute the old subjects and the "well-defined" traditional courses of study. Hence, even in the most progressive schools there have always coexisted two incompatible philosophies—represented, on the one hand, by the traditional curriculum of the separate school subjects and, on the other, by the new progressive spirit of the project. There have also been other unfavorable factors, such as standardization of projects, the

deadlock of uniform examinations, the insufficiency of well-trained teachers who could effectively apply the method, resistance to the new method, and attacks against it on philosophic and other grounds.

Viewed in its historical setup, however, the movement has had a genuine impact on educational thought and practice in Egypt. It certainly did undermine the traditional academic subject matter and loosen the hold of authoritarian, individualistic, and verbalistic methods of teaching. Even though the fleeting interests of the learners might have been overestimated by some exponents of the method, the fact remains that the movement underscored-among other things -the importance of the learner's experience in the educative process and his active participation in determining both the content and the approach of study.

CORRELATION OF SUBJECTS

The Egyptian primary school has always suffered not only from the enormous number of prescribed courses, but also from the frequent introduction of new subjects (the average number of subjects required in a given year has never been less than ten). In 1930 there was a very crude and superficial attempt to decrease the number of subjects by grouping some of them together. For example, science, health, history, geography, and civics were combined in one unit called General Knowledge, and taught two periods a week in all primary school grades. The content of the grouped subiects, however, did not undergo any serious modification. In 1941 a further attempt at regrouping was made: history and geography became one unit, civics and ethics another, and science and health a third unit. Again this was a mere reshuffling of the subjects without any

worth-while change in content. A third grouping took place in 1947¹ whereby history and civics became one unit, geography alone another unit, preliminaries of science and health a third unit.

Although this process of grouping and regrouping did not approach what is usually understood by correlation, it was apparently moving in that direction. Thus, in the late forties new courses of study were set up for the first year of secondary school. They bore the titles General Science and Social Studies, and in these categories former separate subjects were now correlated, if not amalgamated. However, whether on the primary or secondary level, religion, languages, and mathematics were left intact in this process.

THE COMMUNITY-STUDY TREND

Another attempt at integration of subjects came through the avenue of community study on both secondary and primary levels.2 The trend began to take definite form in 1947, when the Orman experimental school initiated a community-study program through study camps. For three successive years the students camped in a different geographic region each year and studied—for about a week —the geographical, historical, social, political, and health aspects of a selected area of that region. In such a study the students drew upon the various subjectmatter disciplines, and it was inevitable that the line of demarcation between the subjects would be blurred as the learners concerned themselves with vital prob-

¹ For details see Education in Primary Schools in Egypt (in Arabic). (Cairo: Arab States Compulsory Education Conference, 1954).

² On the primary level, projects and community study were not differentiated, but on the secondary level the community study replaced the project.

lems rather than with subjects. Language, science, social studies, art, mathematics—all had a functional place in the study. Teachers representing different disciplines brought their respective disciplines to bear upon the clarification and understanding of the various aspects and issues studied.

This field-study approach was further adopted as an integral part of the program of study of the first Rural Teacher Training School, at Munchat El Kanater (established in 1947), and then by other rural and urban teacher-training schools. Furthermore, a few years later this trend infiltrated the secondary school program when the Study of Egyptian Society became an integral part of the secondary school curriculum.

Here again, this community-study program—like the project method—did not develop into a correlating or integrating center for the other school subjects. On the contrary, it eventually became a separate course almost without relationship to what was being taught in other subjects.

THE RESOURCE UNIT

The development of resource units is most significant as far as curriculum improvement is concerned. In December 1954, when the Arab States Compulsory Education Conference was held at Cairo, the idea of resource units and teaching units began to be advocated in the newspapers and other publications and in verbal discussions. The idea was discussed as a teaching technique in a new type of commendable curriculum organization. Later, in June 1955, a group of about forty leading educators (teachers and

senior teachers of education and other subjects in the teacher-training schools, inspectors and inspectresses-that is, supervisors—and some professors of education) met at Alexandria in a Primary Education Curriculum Workshop4 at which curriculum improvement was discussed in detail. The workshop participants were eager to do something worth while, but whether this "something" should be within the framework of the existing subject-matter curriculum of the primary school or within another framework was a worthy point of discussion. The participants finally agreed, however, that it was then unwise and impractical to deviate drastically from the given pattern and that, instead, they should work within the given setup and gradually move away from it. Hence came the idea of studying the content of existing prescribed subjects of each grade with a view to locating some running themes or topics. The following topics were located: "My Home and Family," "My School" (for first grade), "Our Civic Responsibilities," "Our Economic Responsibilities in This New Era," and "Agriculture" (for fifth grade). Five resource units were then built around these topics, utilizing the content of the prescribed subjects while drawing upon other pertinent sources. In other words, the units covered a great deal of the content of most of the subjects taught in these grades, but in a meaningful and functional way. These five resource units, the first to be built cooperatively in Egypt, were favorably received by educational authorities and many educators, who found in the idea a good help and guide for the classroom teacher.5

³ Abu Al-Futouh A. Radwan, The Curriculum of the Primary School (in Arabic). (Cairo: Dar El Maaref Press, 1955).

⁴ This workshop, as well as that held in 1956, was organized by the Egyptian-American Joint Committee for Education.

The classroom teacher system (that is only one teacher for the class) has been recently applied in grades 1 through 4 of primary school.

Later, the Council of Social Services, in cooperation with the Department of Primary Education in the Ministry of Education, invited a similar group of Educators of different specializations (professors of education, teachers and senior teachers in the teacher-training schools, and inspectors) to pursue the work of the Curriculum Workshop and to build new resource units for the other grades (that is, other than first and fifth grades). The following units were produced: "I Am Clean" (for second grade), "Birds of the Village" (for third grade), "Milk and Milk Products" (for fourth grade), and "The Market" (for sixth grade).

In the summer of 1956 a second curriculum workshop was held at Alexandria to construct new resource units. The most significant thing about this workshop is that it recognized—while previous efforts did not—the importance of the participation of primary school teachers in the construction of these units. The participants were mainly primary school teachers who worked under the leadership of few educators (either education experts or participants in the first workshop).

NEED FOR COORDINATION AND PLANNING

As a result of these major efforts a new need arose—a need for coordination and planning. When viewed together, the already constructed units did not seem to combine smoothly. There were duplications and discontinuities. This is partly a reflection on the content and organization of the existing subject matter curriculum within which the topics of the units were selected. In addition, the need for some sort of planning—at least tentative planning—for future efforts along this line seemed imperative. Responsi-

bility for this needed coordination and planning has been recently undertaken by the Curriculum Division in the Department of Educational Research and Projects of the Ministry of Education. Generally speaking, since November 1956 the Division has been working along four lines discussed below.

Drawing a broad and preliminary outline of the major areas of study for each grade. In drawing this outline the Division was guided by psychological, sociological, and educational principles rather than by the existing curriculum or by the already constructed resource units. Among the objectives of such an outline were to locate the best place in the grade sequence for the constructed units, to modify the units accordingly, and to help in the selection of topics for further resource units.

After lengthy discussions and conferences with primary school teachers, principals, and inspectors, an outline of the major areas of study in the primary school was proposed. (See facing page.)

Constructing new resource units to fill in the gaps in the total collection of existing units. Before and during this process a basic psychological principle was meticulously observed—the principle of the group process in which experts, teachers, principals, and inspectors actively cooperate and participate. In none of the previous attempts mentioned did

these areas in the light of the goals and objectives of the primary school have been elaborated in Sadek Samaan, Saad Diab, and Khalil Kamel, The Primary School: Its Objectives and Areas of Study (in Arabic). (Cairo: Ministry of Education, 1957). It must be borne in mind, however, that these areas of study do not constitute everything that is to be taught at school. They only represent a "common learnings program" to be supplemented by the school in a variety of ways.

FIRST GRADE
My School
Home and Family
Our Pers

SECOND GRADE
My Village (or
Neighborhood)
Our Helpers

Recreation in Our Village (or Neighborhood) How Animals, Birds and

Plants Live

My Province (or Municipality)
How Others Live in Different Parts of Our Country
Our Ancestors

FIFTH GRADE
The Republic of Egypt
Modern Inventions
Egypt in the Arab World

THIRD GRADE

The Market Place Means of Transportation and Communication

Utilization of Natural Resources

SIXTH GRADE
Our Civic and Economic
Responsibilities
Our Major Crops
Production Plans and Social
Services in Egypt
Egypt and Other Countries

the four of them sit, plan, and work together. Past experience showed beyond doubt that unless the four do work together as a team and come to some common understanding and agreement about what should and can be done, and why and how, the effort is bound to falter or dissipate.

With this perspective in mind, in January, 1957 the Curriculum Division invited a group of primary school teachers, together with their principals and inspectors, to a three-day conference. They were selected from eighteen different schools located in three different educational zones (Cairo, Guiza, and Benha). Some of the topics discussed were: assessment of the primary school curriculum, ways and procedures of improving the curriculum, the place of the resource unit, and techniques of constructing resource and teaching units. Participants listened to talks given by experts and held group discussions on the above topics. At the end of this conference, six groups—representing the six grades of the primary school and composed of one or two experts and a group of teachers, principals, and inspectors—were formed

to build new resource units. To facilitate group meetings, arrangements were made to relieve all participants of their responsibilities two days a week for about two and a half months. As a result, the following resource units were constructed: "My School District" (for second grade), "Means of Transportation" (for third grade), "Public Services Rendered to Us" and "How Others Live in Different Regions in Egypt" (for fourth grade), "The Suez Canal" and "Egypt and the Arab World" (fifth grade).

In 1958 the procedure was much the same, and the following resource units were constructed: "Our Helpers in the Community" and "The Life of Some Animals, Birds, and Plants" (for second grade), "Means of Communication" and "The Impact of the Sun, Air, and Water on our Lives" (for third grade).

As a result, there are now enough resource units to cover all the major areas of study proposed for the first three grades, and a few others for the fourth and fifth grades.

Furthermore, the Curriculum Division has managed to produce so far three film strips to acquaint teachers with the various procedures and possibilities involved in the unit method of teaching, and to help them utilize the resource units effectively in planning their own activities and guiding the pupils in and outside the classroom.

Experimenting with the units. While the above-mentioned groups were engaged (in 1956-57) in building new units, they were simultaneously trying out some of the already constructed units in different classes in their schools. These classes represented different grades, and the schools represented different socioeconomic communities. Here again, men and women teachers, inspectors, and principals cooperated in a pilot experiment, and the seriousness of their participation contributed significantly to its success. As expected, some modifications had to be introduced on the tried-out units as a result of this experimentation.

In the academic year 1957-58 the following expansion took place:

- 1. The new method was applied in *all* first grade classes of the eighteen schools selected in 1956-57 from the three educational zones mentioned above.
- 2. Pupils of various grades who had been taught in 1956-57 by the unit method continued in 1957-58 to be taught by the same method in their new grades.
- 3. Eighteen more schools were selected in the same three zones. In each school the method was introduced in one or two classes in different grades.
- 4. Fourteen new schools were selected from two new zones (Alexandria and Fayoum) in each of which experimentation took place in only one first grade class.

In other words, the number of zones where the new method of teaching has been applied so far increased from three to five; the number of schools from eighteen to fifty.

Future plans. The plans for 1958-59 include:

- 1. Constructing more resource units especially for the upper three grades of the primary school.
- 2. Applying the new method in at least all first- and second-grade classes in the fifty schools mentioned above.
- 3. Selecting additional schools in the five zones, and new schools in zones where the method has not yet been introduced.
- 4. Producing more filmstrips for teachers, principals, and inspectors.
- 5. Initiating an evaluation program whereby the two types of teaching methods and curricula (the traditional and the new) will be submitted to critical examination. This will mainly cover the effect of each type on pupil achievement, understandings, skills, and attitudes.

Definitely some psychological, professional, and organizational preparation must precede any steps for further expansion. Being aware of this fact, the Curriculum Division expects to continue conducting its workshops and conferences for teachers and administrators.

It is extremely significant to note that the departments of Primary Education, In-service Training, Teacher Training, and Educational Research and Projects are cooperatively pushing forward this movement of curriculum development. In the numerous conferences, workshops, and in-service programs organized throughout the year for primary school teachers and administrators in different parts of the country, certain topics have become fundamental for discussion and study: the present need for curriculum revision, alternative types of curricula

(correlated, integrated, fused, broad fields, core), understanding the place and function of resource units, how units are constructed, and how to overcome problems of applying the unit method of teaching.

It is also significant that in the teachertraining schools and colleges which prepare teachers for all educational levels, the previous topics have recently become an essential part of their pre-service program. In many of these institutions students are not only being trained to build resource units for primary school teachers, but are also encouraged to apply them in their practice teaching. Furthermore, the Rural Teacher Training School at Bayel Arab has been experimenting, rather successfully, with the core program in the first two years.8 A major part of the program of student teachers in these two years is built around some major social, economic, and health problems of some of the surrounding villages. The success recorded by the experiment has encouraged the administration to think of extending the scope of experimentation so as to include other classes in the first two grades. It is difficult at present to apply the core program in the third year, primarily because of uniform examination requirements.

⁸ A similar core program is being developed in the Experimental Secondary School at Kubba, attached to the College of Education at Cairo.

EMERGENCE OF SOME MAJOR CONCEPTS

The above, hitherto unrecorded, comments on the history and significance of some of the major attempts at curriculum development in Egypt indicate that there is a progressive realization of the following points which need to be continuously upheld if present gains are not to become crystallized:

1. The necessity of continuously utilizing and capitalizing on the results—successes as well as failures—of previous attempts at curriculum development in Egypt and elsewhere.

2. That change in curriculum, just like any social change, cannot be hurried faster than those persons involved in it are ready to go.

3. That since the process of changing the curriculum is a process of social change, it involves changing values, attitudes, and beliefs and acquiring new skills and techniques pertinent to the nature of change sought.

4. That success of this process depends upon how it is guided and controlled. Thus, conditions for effective group participation and group endeavor have to be provided, security-giving measures guaranteed to all those involved, and democratic leadership developed on a larger scale.

Three-Way Conferences

A Three-Way Chance for Improvement*

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PRINCIPAL, INDIALANTIC (FLORIDA) ELEMENTARY SCHOOL

School opens in September, and the first days of school are most significant to child, parent, and teacher. It is important that the classroom teacher create favorable and lasting impressions during this time. The first contact lays the foundation for sound working conditions between home and school; thus, at the first meeting, both opportunity and challenge await the teacher.

With the beginning of each school year the child faces a new opportunity, and he looks with interest toward his new quarters, new friends, and the renewal of relationships with former classmates. He is likely to be eager to do better work, to do his best even in difficult subjects, and to make a good impression. During these first days his determination is likely to be quite firm, and at this point he is easily motivated to work. Unless his enthusiasm and interest are engaged in active work from the start, there will be a tendency to lose some of this initial eagerness.

The teacher should give considerable thought to greeting the children and par-

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ents suitably the first day. It is essential for him to be friendly with both groups in order to make them feel that they are a vital part of the class family for the year. He should make every attempt to convey to both children and parents that one of his objectives is to create an environment in which child, parent, and teacher can work effectively and harmoniously.

To help children adjust more easily to school after summer vacation and to stimulate a unifying interest, it behooves the teacher to launch interesting class activities and to involve parents in the curriculum from the very first. As a result of establishing a good working relationship, the teacher can expect concomitant values to show up in the quality of the child's learning experiences and in the degree to which parents cooperate with the teacher. Open house can be considered ered an integral part of the class program, but in the final analysis there are many other types of experiences valuable in promoting effective home-school relationships and establishing the best kind of education for the children. Teachers may schedule mothers' meetings, teas, assemblies, hobby day, field trips, story hour, and a variety of other activities in which parents may participate. In working with parent groups it is necessary for a teacher to analyze all the different types of activities that can be carried on, and to make decisions relative to experiences that he thinks he can plan and execute most effectively.

The responsibility for a good school falls upon parents and teachers alike. Its program cannot function properly and adequately until a social process is developed that includes constant interaction among child, parent, and teacher. It is the three-way conference which is most significant in establishing a home-school working relationship which emphasizes the *child* as the vital link between home and school.

Teachers may ask, "When do I have time for three-way conferences?" One is fortunate if he works in a system where conference days are set up in the yearly calendar two or three times a year. Some administrators ask their teachers to schedule conferences in the evening prior to the conference days, so that fathers who cannot leave work during the day can be included. Where the art, music, or gym teachers take over a class it is suggested that classroom teachers ask mothers to come in during the special periods. The child misses his special class, but the time spent in conference offsets the loss. Often teachers are not required to supervise their children during recess, so this is another good time to make appointments. The teacher who sees parents after school finds that the results more than repay his effort.

Much of the success of a three-way conference depends upon how both children and parents are oriented to the unique idea of having each child included. At a meeting called early in the school year by the teacher, parents need to be reminded that they have a significant role to play in the education of their child. It should be emphasized that

in these conferences the child has opportunity to volunteer information, to react to parent comments, and, perhaps even more important, to find out what the parent and teacher consider outstanding in his background. Parents can be convinced that through the interchange of ideas by child, parent, and teacher the chances are that each can evaluate himself, gain a better perspective of his relationship with the others, and develop more effective ways for further improvement and growth.

At first the teacher may expect varied responses from parents when the three-way conferences are proposed. Some may feel that the presence of the child will handicap them somewhat in discussing difficulties freely. Others may feel that the child might not express himself fully or readily with both the mother and the teacher present. A teacher can expect some resistance when announcing any new plans, but by and large, parents are open-minded and show a willingness to try the teacher's suggestions when they know he is making a sincere effort to help their child.

An important point to make to parents is that three-way conferences will be scheduled for *all* children, not for just the troublemakers, the immature, the average, or the gifted.

In preparing the children for these gettogethers, the teacher can inform them that each child will have a conference with one or both parents, and that opportunity will be given to discuss problems, complaints, special interests, and questions. It is recommended that each child talk beforehand with his parents about important topics.

Even when conference rooms are available in schools, there seem to be several advantages in holding the conferences in the classroom. The child is more accus-

tomed to his classroom environment and the meeting seems to be more informal and friendly. Parents coming to the room have an opportunity to examine displays and bulletin boards and look at the individual work of the child. Parents who come a few minutes early or stay for a visit after the conference may have the opportunity to see how their child gets along with his classmates.

When appointments are made two or three weeks in advance, most parents will either notify the teacher they can attend or will suggest another time. Regardless of busy schedules, mothers and fathers generally accept school responsibilities when invited and when their own children are involved. Appointment slips can range from simple dittoed messages listing the time and place for the conference to a friendly invitation written by the child. Parents enjoy receiving letters from their children and are likely to respond in a positive manner.

The teacher may want to devise a guide to use during the conference. Seven general headings suggested for a guide sheet are: pupil's attitude toward school, behavior patterns, work habits, homeschool efforts, use of free time, special interests, and recommendations for parent, teacher and child. The use of such a guide will help the teacher to avoid conducting a stereotyped conversation.

Friendliness, informality, and a sincere desire to accomplish understanding and self-direction for child, parent, and teacher are keys to success. In setting a friendly tone, some such introductory statement as the following may be helpful:

Mary, I'm glad that we have the opportunity for you, your mother, and me to sit down together and see what each is thinking about our relationship in the classroom. I have a few things that I want to say while

we are here together—things that I think are most characteristic of you. I will mention my points briefly, but if you prefer to talk about something you think more important, then we will leave what I considered discussing and come back to it later.

The teacher may want to wait for a reaction from the pupil and her mother. If they approve of his points, he may continue. If either states that he has an important point, the teacher opens the conference with that lead.

When children are asked to begin, typical statements might be, "I still write messy papers." "Mother is forcing me to take piano lessons and I hate them." "You don't give me enough time to finish my arithmetic." Examples from comments made by mothers are: "How long do you think the child should spend on homework at home?" "Does Julian read at school? I never see him pick up a book at home." "I think Shirley likes school just because of the 'fun' element. Does she ever do any work?" Such comments as these enable all persons concerned to pinpoint significant problems very early in the conference.

A teacher should organize his time so that he can schedule a three-way conference for each child at least twice a year. Career teachers can acquire information about each pupil, develop rapport with both the child and his parents, and consider conferencing an integral part of his work load. Often in a twenty-thirty-minute conference a teacher can discover personal, social, academic, physical problems that would otherwise take months of guesswork, observation, and frustration to reveal.

Excerpts from three-way conferences illustrate a variety of problems as they exist among the children. Chuck's conference offers an example where both the child and the mother felt the freedom and

opportunity to discuss a home problem. His achievement in academic work and his outside interests were mentioned briefly, for his problem was not his academic work or lack of worth-while activities to occupy his free time. His trouble centered around his behavior after school, which was distressing to him and to his mother. The majority of his conference was spent in the following discussion.

Chuck (addressing the teacher). Do you remember what I told you the other day? Frances was kicking me. Well, it's still

Mrs. Nichols. I'm so glad Chuck is free to bring this up here. He has told me all about the problem at school and I see traces of it in his after-school behavior. Chuck and neighborhood children throw acorns and other things at each other in the park after school. If Frances and Chuck continue fighting I'm afraid someone will get hurt. While the boys are playing football, the girls-led by Frances ride their bicycles off and hide them. This is a nuisance when the boys are ready to go home.

Chuck. It really makes me and the other boys mad when they take our bikes.

Teacher. Maybe the girls are disappointed because you boys refuse repeatedly to let them play with you. Aren't they anxious for you to give them some attention?

Chuck. The other boys and I wouldn't care if they played with us, but they have nicknames for us, and we don't like them. They call me "Mary" and that makes me

Mrs. Nichols. I do hope something can be done before things get too serious. Frances' mother is a very good friend of mine and I don't want to lose her friendship over such a thing, nor do I want either of you children to get hurt.

Teacher. Chuck, would it be wise for you and Frances to get together and talk over all the problems you have mentioned?

Chuck. Yes, it would. I have a lot of things

I'd like to say to Frances.

Mrs. Nichols. I'm so glad to know that the school is coming in to help solve this problem. We parents are really worried about it, but if you can get the boys and girls together and get this ironed out, it will be quite a load off our minds.

Subsequent to Chuck's conference, the teacher gave Frances and Chuck class time to discuss their behavior with other members involved in the after-school disputes. The boys and girls reported honestly on their mistakes and negative attitudes. They developed understanding and agreed upon rules that would enable them to play and work together with a minimum of conflict.

An example of evaluating and making specific recommendations for the summer is to be found in a running report on

Dana's conference.

Teacher. Dana and Mrs. Cox, in this series of conferences my primary purpose is to let each of you know how Dana did on the standard achievement test and to make some suggestions for improvement. Dana, your scores indicate that you are doing average work for a fifth grader, and all your scores give evidence that you can go into sixth grade and do good work. This past year you made two years' growth in

Mrs. Cox. I'm glad you told Dana that, for while she was taking the test she came home every day discouraged because she didn't know any of the answers. She just knew she had failed on every

question.

Dana. I really did think I failed, for I fin-

ished very few of the tests.

Teacher. I recall that you seemed worried about not having time to finish the tests, but apparently you were accurate in completing the answers that you gave. Dana, as you know, we have worked hard on your reading all year. Remember what I have said about two areas on which you need to concentrate? What are they?

Dana. Reading and writing. You said that I should read more in different books.

Yes. And you are reading more, and a variety of materials. You have done an excellent job of reporting on topics in both science and social studies. What have I said about your writing?

Dana. You tell me I don't write enough on any subject, and you ask me to keep writing my work over until I do my best.

Teacher. That's right, Dana. How many copies do you usually write before I ac-

cept your work?

Dana. Sometimes you take my second copy, but most of the time I have to write

Teacher. Don't you think once should be enough?

Dana. Yes, but I can't think of anything

interesting to write about.

Teacher. Remember what we said about organizing your thoughts before you begin? Think about your topic and use your imagination. I am going to recommend some kind of experience for you that will require writing this summer.

Mrs. Cox. I know what she can do. We are going to our summer home and there are three persons who want to hear from her regularly. I'll see to it that she writes three

letters each week.

Teacher. Dana, what do you think of your mother's suggestion?

Dana. I think its' a good one.

Teacher. Are you going to read anything while you are away this summer?

Dana. I'd like to.

Mrs. Cox. Our summer place is really in a secluded spot in Maine. Dana has just received a little money for her birthday. I think she could use it to buy some new books to help keep her occupied.

Dana. That's what I'll do.

Teacher. How would you like for the other children and me to make a recommended list of books that we like? You can take the list to help you in selecting your new books. This is just an idea.

Dana. That would be swell!

Teacher. This afternoon we will discuss our favorite books and make a list.

With this functional suggestion for summer work coming from the mother when child, parent, and teacher were present, the teacher felt that the recommended procedures would more likely be followed than if he had outlined specific suggestions on the report card or over

the phone. He thought his significant contribution was acquiring names of books that were on Dana's reading and interest level.

It is suggested that whenever possible the teacher ask the child if he has a special interest outside of school. The child's attitude and comments about his or her collections, hobbies, and interests are of value. In a conference Marge stated that she had no real outside interest, but the teacher discovered that she had started a collection of china that could possibly develop into a fascinating study.

Teacher. Marge, do you have special interests that occupy your time outside of school?

Marge. No, I do a lot of things but I don't

have any hobbies.

Mrs. Peck. You developed a new interest recently. While I was away on a trip, Marge painted china to give as Christmas

Marge. I forgot. I collect things made of

Teacher. What do you have in your china collection?

Marge. I have animals, a little piano, dancing girls, cups, saucers, and a lot of other

Teacher. How have you collected your china?

Marge. My father and mother have sent most of what I have while he was away on business trips.

Mrs. Peck. My husband goes to Europe often and be often and he usually brings her things from there.

Teacher. Do you associate the gift with

the country in any way, Marge? Marge. How do you mean?

Teacher. It seems to me that it would be fun to know which country Delft, for example, came from, or in which country Dresden was made. You might study how the factories influenced the life of the communities. Another thing that might be interesting. be interesting is to start a file of clippings of current events from the countries rep resented in your collection.

Mrs. Peck. That does sound like fun.

Teacher. Then too, you and your mother might want to visit museums in New York to see the collections of china and old glass.

Marge. I think I'll read about the coun-

Teacher. Bring in some of your collection and we'll take a trip to the library. Okay? Marge. Sure.

Marge's conference helped to bring home interests into the school. She brought in a few items from her collection and began to search for material in the library in order to associate the article with the country. Progress in her new interest resulted in appreciable change in her reading habits and led to innumerable hours of pleasurable reading. The Hans Christian Andersen porcelains were an introduction to a new author. Her Swedish horse led her to a fascinating investigation of Swedish Christmas customs and people. She was replacing such fictional characters as Nancy Drew and the Bobbsey Twins with wonder tales and history. As interest in her project grew, other children were encouraged to bring in collections and items relating to their special skills. Through sharing their outside activities, the children established new interests and developed better friendships.

Without adult stimulation, children would live in a world of immaturity. The teacher should cherish his opportunity to help a child think critically about himself, to give encouragement, suggest initial steps in tackling a new job, help him acquire independence, and recommend materials and sources of information. Possible outcomes of the cooperative venture are mutual understanding, knowledge of and respect for the contributions of one another, a feeling of camaraderie, and a definite plan for future action by

each person participating.

Three-way conferences enlighten the

teacher about the child's home life and background so that he is in a better position to help both the child and the parent. Below are examples of data revealed in conferences that help the teacher to discern pertinent influences in the home background.

In Ina's conference the teacher found that the Baldwins apparently favored her older sister. It seemed that the parents' attitude toward Ina might be the cause of her lack of ease and her feeling of insecurity.

Mrs. Baldwin (to the teacher). Mr. Baldwin and I cannot understand why Ina doesn't like to read. We both enjoy reading so much and so does Margaret, Ina's older sister. If Ina has read a book this year, I don't know it.

Teacher. Mrs. Baldwin, I would like for you to read the report that Ina turned in vesterday on The First Pilgrims. Ina, how about getting it for us? (Ina went to her desk and returning with the book report, handed it to her mother.)

Mrs. Baldwin (reading the report). My Ina wrote this? I don't believe it. This is ex-

cellent!

In several conferences the teacher discovered that the fathers were not getting a complete picture of their child's behavior at school. This fact was distressing to the teacher, particularly in cases where boys needed understanding and guidance from their fathers.

Mrs. Fuller (to the teacher). Before Hobert can go out to play in the afternoon he must finish his homework. He must have completed it before his father returns home. Dad comes home tired from the office and all problems must be put aside.

Teacher. What did Mr. Fuller say about the problem when Hobert pulled the swing out from under the girl on the

playground?

Hobert. Oh, we didn't tell him about that. He'd kill me!

Mrs. Peeler's casual comment about Deanne keeping the family supplied with desserts was significant to the teacher. He was glad to learn that she was capable of starting a job and being interested enough to complete it.

Mrs. Peeler. Making desserts is not a problem for me. I turn Deanne loose in the kitchen with her friends whenever they want to cook, so they keep plenty of desserts on hand.

The three-way conference places emphasis where it belongs—on the child. As working relationships develop among child, parent, and teacher, the teacher can visualize a program that incorporates individual needs, common goals, and mutual understandings. Through better understanding, interested teachers and parents become aware of their responsibilities and are in a favorable position to develop their own organizational and operational procedures in planning and providing better educative experiences for the child.

The child who is invited to participate realizes that he is not "left out" in planning for his future. He soon learns that conferences are constructive and that they play a vital part in helping him, his

parents, and his teacher. He feels secure in knowing that those close to him are making serious attempts to develop understanding and practical approaches to problems. It seems reasonable to him that he will receive more intelligent guidance—guidance that will be significant for his growth, help him make a better adjustment, and yield memories of an enriched association between home and school.

In three-way conferences, parents and teachers usually acquire professional respect for one another which frequently develops into continuing social contacts outside of school. Friendly social relationships with parents enrich the life of a teacher and give him opportunity to talk on an adult level. They also help him to get a better insight into the problems and thinking of the community. Mutual understanding, consideration, and respect-all are inherent. Out of all evolves a unity not usually evident in other approaches. Opportunity is given to state problems, formulate constructive and cooperative effort toward solution, and plan social outlets for expression for all concerned. Hence, three-way conferences lead toward a three-way chance for improvement.



American Education in the Twentieth Century, by I. L. Kandel. Cambridge, Massachusetts, Harvard University Press, 1957. 247 pp. \$5.00.

Professor Kandel's assessment of American education is presented under the titles "The Public and Its Schools," "Education of the Child," "Education of the Adolescent," and "The Teaching Profession." An introductory chapter of twenty pages and a conclusion of eight pages complete the book.

This volume reflects the author's experience in American education and his breadth of understanding of education the world over. He sees American education as tending to depart from its transatlantic sources. His writing is characterized by an unprecedented faith in education born of the American tradition of freedom and opportunity.

At the same time he finds confusion—a confusion rooted in two wars, a depression, an abandonment of traditional values, and in rapid and deep-seated changes in materials, science, and technology. Resulting pressures on the schools include an increase in the birth rate, need for buildings, shortage of teachers, competition between federal, state, and local agencies, discontent among thinking people, a struggle between academic and vocational elements in the profession of teaching, and an alarming rate of illiteracy. The concept of liberal education is either discarded or watered down.

The public control of local schools began in the district system. At the turn of the century the system was altered by industrial development and urbanization. Consolidated rural schools and large-scale city systems threatened the public interest. Compulsory education laws brought problems of counseling, curriculum adaptation, and changes

in methodology. The extension of educational opportunity resulted in lowered standards, mediocrity, and neglect of the gifted. The professional studies in education changed their bases from faculty psychology through Herbartianism to modern studies in psychology and sociology. The cooperation of parents, the public, voluntary groups, professional associations, and professional staffs now characterizes American education. The American system seeks to "be classless, coeducational, nonpartisan in politics, and secular."

The elementary school is extended downward to include the kindergarten, and often the nursery school. Upward the organization has changed, chiefly in cities, from the 8-4 to the 6-3-3 pattern. From Herbartianism the elementary school turned to the child-centered school, then to the community-centered school. The "needs" philosophy of elementary education has reduced the stress on the "fundamentals." Educators are too sensitive to criticism and add to the confusion by a defensive attitude.

The American secondary school, in its effort to extend educational opportunity to all, is a target for criticism. The preparatory function is neglected, the better pupils are not challenged, teachers are not rigid enough in either subject-matter or discipline, and standards in general are too low. The various pronouncements regarding the aims of secondary education, from the Committee of Ten to the present, have had little effect on practice. The secondary schools have allowed anti-intellectualism to grow, from Benjamin Franklin and the Philadelphia Academy to the latest proposals of the Educational Policies Commission and the United States Office of Education. All of the modern efforts fail "to implement educationally the ideal of equality of

opportunity." Professor Kandel implies that implementation may best be effected by a subject-matter approach. The fundamental problem is to find "the right education for the right pupil" and "not to discriminate

against any group."

This review of teacher education builds on the nineteenth century normal schools, professors and departments of education in colleges and universities, the teachers college movement, and the scientific studies begun by G. Stanley Hall, E. L. Thorndike, and others. The "academic civil war" retards the development of sound programs of teacher education. The teaching profession at all levels could be united in the aim "of helping pupils to understand the world in which they live, and which is constantly expanding in range and scope of meaning as they grow and develop—intellectually, emotionally, morally, and aesthetically."

Education is "the nation's unfinished business." Professor Kandel goes back to the days when Jeffersonian tradition vied with Jacksonian democracy; the former strove to preserve quality, the latter the "cult of mediocrity." The pressing need of the present is to improve the quality of the teaching profession and to devote "far more attention to the quality of education."

The reviewer is filled with admiration for Professor Kandel's qualifications to write this book. His wide range of knowledge of the literature and practice of education, his penetrating insights into the issues producing our present confusion in education, and his capacity to evaluate proposed solutions mark him as one to whom we should give ear. Granting his qualifications and the cogency of his strictures, many American educators, perhaps in their hypersensitive defensiveness, would insist that his ideals and aims are realized in greater measure than he alleges in this book. Nevertheless, it is good to have such a competent and wise critic within our ranks.

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The University of North Carolina, 1900-1930, by Louis R. Wilson. Chapel Hill, The University of North Carolina Press, 1957. xxi + 633 pp. \$7.50.

One of the most important institutions in American society is the state university. Today these universities not only are fulfilling their traditional responsibility of offering educational opportunities to large numbers of young people but in addition are making, through their many programs of research, publications, extension, and service, mighty contributions to the well-being of the state and the nation. The University of North Carolina, 1900-1930 tells the dramatic story of that significant period in the life of one of these state schools when it evolved from a small liberal arts college concerned primarily with teaching to a modern university fully aware of and equipped to discharge its larger educational and social responsibilities.

Wilson's approach to the task of describing and explaining this important period of growth at the University of North Carolina is a simple one. He takes the position that the four presidents who served during this transitional period were chiefly responsible for bringing about these important changes in the institution. President Francis Preston Venable, 1900-1914, with his emphasis upon the importance of sound scholarship, science, a library, and outstanding faculty, laid solid academic foundations upon which the modern University stands. Edward Kidder Graham, 1914-1918, gave to the University a prophetic vision of its potentiality for leadership in improving life in North Carolina. Marvin H. Stacy, 1918-1919, continued these traditions in his brief presidency during and following the war. Harry Woodburn Chase, 1919-1930, in further developing and extending ing these traditions, expanding the school plant, and strengthening its financial base, completed the building of the University. All of these men are seen to have made important contributions to the total development of the school through their skillful handling of such administrative matters as

administrative organization, faculty, students, alumni, finance, plant expansion. Wilson describes their approach to these problems in complete detail. For this reason the book can be of value to university administrators who are looking for ways of dealing with similar problems at their own institutions. Venable's approach to faculty building, Graham's philosophy of the state university, and Chase's defense of academic freedom, for example, can be studied with profit by administrators everywhere. The work of these presidents was outstanding and gives strong support to Wilson's basic premise that they were largely responsible for the impressive growth of the University in the three decades of their service. Though Wilson does not entirely neglect the part played by the faculty and others associated with the school, they generally appear as only supporting characters in his story.

Unfortunately, this book, like many histories of educational institutions, tends to emphasize the physical phases of the growth of the University of North Carolina to the neglect of more purely academic matters. Much space, for example, is given to problems of finance and plant expansion with small consideration of the school's underlying philosophy of education, of the basic curricular organization, and of its approaches to problems of teaching and evaluation. And a preoccupation with the internal development of the University has resulted in only a superficial study of that wider state community which, in the final analysis, made Possible the growth of the institution. References are made to characteristics of North Carolina's economic, political, educational, religious, and educational life but no thoroughgoing analysis of these cultural forces is made.

This is a scholarly work. The volume of factual information presented about life at the University during the first three decades of the twentieth century is truly encyclopedic. Wilson served as Librarian for the University throughout the period under study. His intimate acquaintance with the people and events he describes enables him

to present a keenly analytical and warmly human picture of these important historical developments.

Edward Kidder Graham, eighth president of the University, described the state university as "the finest and most promising achievement of American democracy." The University of North Carolina, 1900-1930 makes an important contribution to our understanding of this democratic achievement.

RICHARD K. SECKINGER Bethune-Cookman College

Education and the Good Life, by Frederick Mayer. Washington, D. C., Public Affairs Press, 1957. v + 123 pp. \$2.50. New Directions for the American Uni-

versity, by Frederick Mayer. Washington, D. C., Public Affairs Press, 1957. viii + 52 pp. \$2.50.

Education for Maturity, by Frederick Mayer and Frank E. Brower. Washington, D. C., Public Affairs Press, 1956. vi + 155 pp. \$3.25.

Each of these books is a mixture of many ideas, and as the three mélanges are similar it is proper to review them together.

The authors describe themselves as "liberals" whose faith "rests upon the sanctity of the individual." The aim of education should be, they say, to release the "infinite capacities" of each individual and thus, through a "transvaluation of values" in the individual, to transform the schools and to produce evolutionary (not revolutionary) progress in society. The ideal teacher will evoke the creativity of the student; and "the creative child is the happy child." A student should be free to develop his virtues and talents and should be "guided more by his interest than by formal standards." The teacher should "motivate with significance" and aim at producing balanced, integrated, critical, appreciative, sympathetic, democratic, civilized, constructive persons.

The authors have attempted to include in their vision of education the vast diversity of values which are to be found in the heri-

tage of the past and the experience of the living present. They believe in the rational, emotional, moral, esthetic, and social sides of human living; in past, present, and future; in tradition and progress; in science, art, religion, and philosophy; in freedom and discipline; in Dewey and Hutchins; in vocational training and liberal education. They believe in aristocracy and democracy; in intelligence, good will, and cooperation; in skepticism and faith; in "no absolute truth" and in God. They believe in time and eternity; mysticism and logic; knowledge and wisdom; solitude and society. Above all, they believe in enlightenment, tolerance, sanity, order, and balance: "In an age of extremes, moderation is all-important and compromise is almost a golden rule."

They believe in so many good things, in fact, that the reader begins to wonder whether he is dealing with a cosmos or a book, and wishes that the writers might apply their own principle of moderation: the books seem extreme in their all-inclusiveness.

Implicitly, of course, the authors do exclude certain ideas and ideals from their philosophy and hence certain persons, groups, and values from their schools and commonwealth. What is excluded may be summed up in their own word "radical"—a radical is impatient, fanatical in the eradication of evils, revolutionary. Yet every value which these liberals bow down to came into being because some great individual stormed the gates of the Established Order—Socrates, Jesus, and the others so copiously quoted here.

Thus, for all their protests, these writers are in fact much more traditionalist than they imagine: they quote the ancient and modern classics with other-directed reverence; they admire the classical golden mean; they express doubts concerning the capacity of the masses; they minimize the importance of social change and the direct reconstruction of the economic, political, and legal orders; they conform to the clichés of the Greek-Renaissance-Modern Science tradition and worship the sacred cow of Modern Liberalism. While it is relatively safe to

quote the dissidents of ages past, it would be dangerous to cite the great heretics of modern times who have prophetically denounced the evils and hypocrisies of our own society and civilization: Marx and Veblen, Nietzsche and Freud, Kierkegaard and Barth are barely mentioned.

Other defects of the authors' cosmic outlook are a lack of sharpness in their definition of concepts and a sloppiness in their organization. In many places (not all) these books are shallow and show the effects of hasty though enthusiastic and informed writing. But they are worth consideration because they express one pervasive ideal for our education and society, and do so in a light, illustrative way that will attract large numbers of people. The liberalism expressed in these pages is a good thing, in part, and worth keeping and improving; but at the same time it reflects the smugness, conformity and false optimism which characterize our society and, worse still, our education.

Howard L. Parsons Coe College

The Teaching of Geography, by Zoe A. Thralls. New York, Appleton-Century-Crofts, Inc., 1958. 339 pp. \$3.75.

In America today it is the rare teacher who has anything more than the most rudimentary acquaintance with modern geography. Even though the core of many elementary social studies programs centers on geographic content, most elementary school teachers are faced with serious difficulties as they attempt to bring an understanding of the world's lands and peoples to their students. Their problem is not difficult to explain. These teachers went to school at a time when geography was a stepchild of education. It consisted largely of the memorization of place names and products. Few of the ideas developed were related to vital contemporary problems. As a consequence, the majority of these teachers have never had an opportunity to learn what functional geography can mean to our children.

Another aspect of the problem stems

from a basic misconception regarding the nature of geography. For many years some teachers have considered geography to be a study of the relationship between man and the natural environment. Teaching geography from this frame of reference is hazardous, for it can so easily lead one down the path of geographic determinism. The natural environment may set limits upon man's activities and suggest the most appropriate patterns for occupying the land; nevertheless, technology has greatly extended these limits, and man's heritage of culture has influenced his patterns of occupancy.

What, then, is geography? Geography is space orientation. It organizes its materials with respect to spatial arrangements and distributions on the earth's surface. What we do when we teach children geography can best be understood by comparing history and geography, the two basic ingredients in the elementary social studies curriculum. As the child learns history, he acquires his orientation in time; as he learns geography, he acquires his orientation in space. And all things and all people occupy space.

Unfortunately this point of view is not made clear by Miss Thralls. The first sentence states, "Geography is the physicalsocial science which describes, maps, and seeks to explain the interrelations between man and his physical environment." Even teachers who reject geographic determinism, as those with the author's experience would surely do, may be committing themselves to a serious error when they limit the study of geography to the "interrelations between man and his physical environment." The error, of course, lies in the fact that so many things influence man that we are simply not on defensible ground in separating out physical factors for special study. There is always danger in teaching children to base explanations on single causation thinking.

It would be highly unfair, however, to allow one point to color an evaluation of a book. The Teaching of Geography contains much useful material. Its greatest value is in

the chapters dealing with the major tools for learning about geography. The chapters on map and globe skills, pictures, graphs and statistics, current events, and reading are filled with helpful suggestions for teachers. Miss Thralls has drawn upon her own store of know-how, which has been gathered during nearly half a century of teaching geography to boys and girls and to teachers. In addition, she has made excellent use of the how-to-do articles that have appeared over a period of years in such professional magazines as The Journal of Geography and Social Education.

On the other hand, much more might have been included. There might have been heavier emphasis upon problem solving and direct learning experiences, and more attention might have been given to gaining geographic principles. The emphasis on testing seems disproportionate. It might have been better to emphasize evaluation, of which testing is a part. One might wish, too, that some attention had been given to the teaching of geography as part of the social studies and earth science curriculums, for geography today is as likely to be found as part of these subjects as it is to be offered separately.

In spite of these limitations, no better book on the teaching of geography is available to American teachers. Miss Thralls knows teachers. She knows how to communicate with them and how to develop ideas on the teaching of geography that will be meaningful to them. This, then, is a practical methods book that should be available to everyone who is interested in the teaching of geography.

PHILLIP BACON
Teachers College, Columbia

Working with Student Teachers, by Florence B. Stratemeyer and Margaret Lindsey. New York, Bureau of Publications, Teachers College, Columbia University, 1958. x + 502 pp. \$4.75.

There is a need for a book which attempts to bridge the gap between the col-

lege program of teacher education and the experiences the student teacher has with his cooperating teacher in a specific school situation. Yet few professional books have been developed to deal specifically with the work of the cooperative teacher in making this experience significant for all concerned. Out of the wealth of their background with programs of teacher education, Stratemeyer and Lindsey have attempted to write such a book.

Working with Student Teachers is organized into two parts. Part I presents background information on the purposes and nature of a total program of teacher education and includes a brief résumé of the nature of college students as learners and as representatives of a college in actual programs of teacher education. The material in this first part may be of greater value to cooperating teachers than it will to members of college staffs. Part II, "Guiding the Student Teacher in the Range of the Teacher's Work," is divided into eleven chapters organized around the common problems of student teaching.

The material in these eleven chapters is closely related to the recognized concerns of cooperating teachers as they try to help student teachers deal successfully with their actual teaching situations. The chapters also are filled with material Stratemeyer and Lindsey have found valuable to cooperating teachers in the many programs of teacher education with which they have worked. The high validity of both the problems and the related materials should contribute a great deal to the meaningfulness of this book to all who use it.

Even in this second part, however, Strate-meyer and Lindsey have difficulty in knowing how much of the current information about teacher education and learning which is available in practically all books of education to place in the hands of the cooperating teacher as a means for developing background for her work with student teachers. Two or possibly three chapters of the eleven could be criticized as duplicating familiar material. These are: "Guiding Stu-

dents in Study of Children and Youth,"
"Guiding Your Student Teacher in Evaluating Growth of Learners," and, possibly,
"Evaluating your Student Teacher's Progress." At the same time a real case can be made that these chapter headings represent important enterprises in the cooperating teacher's work, and any general book dealing with student teaching should include this material. It is easy to see why so few people have attempted to write this kind of book.

One real value of the material in Part II is the inclusion of many descriptive, anecdotal, and episodic materials taken from real student-teaching programs, so that the general suggestions made in each chapter are illustrated in at least one or more concrete teaching situations. This procedure helps a cooperating teacher translate the general suggestions of this book into the activities she carries on with the student teacher. The presence of previously unpublished material on the operations of teaching developed by Louis Raths adds greatly to the reader's understanding of a problem not frequently discussed by most books on teacher education. Other problems of the cooperating teacher are documented by firsthand materials in many different ways.

Members of the college staff interested in programs of teacher education will find this book extremely valuable as a means of helping cooperating teachers clarify their functions in programs of student teaching. The material will be equally valuable for student teachers in helping them think through their own role in working under the direction of a cooperating teacher. The reviewer is sure that the authors would want the staffs of individual schools and their cooperating colleges to go beyond the material in working with student teachers and develop their own handbooks and arrangements which will clarify and illuminate the particular program of teacher education being developed in their own region. The present interest in student teaching as a key experience in programs of teacher education makes it especially important that efforts be

made to develop excellent material in this field. The Stratemeyer–Lindsey book attempts to move in this direction, and like all exploratory attempts suffers from our need to define our problems more adequately and to bring a greater range of the materials from various fields to the help in solving these important problems. The reviewer regards this book as a promising first step in developing good professional materials for an area long ignored in programs of teacher education.

VIRGIL E. HERRICK University of Wisconsin

Education for Nursing Leadership, by Eleanor C. Lambertsen. Philadelphia, J. B. Lippincott Company, 1958. 197 pp.

This book is about the professional education of the nurse practitioner. The author conceives of her as having two important responsibilities—giving expert nursing care and directing others in planning and giving it. Therefore, when she speaks of a nurse leader she has in mind such a person.

From 1949 to 1956 a series of studies and experiments concerning nursing team organization and functioning were conducted by the Division of Nursing Education, Teachers College, Columbia University. Although the author goes beyond the mere reporting of findings, this book is an outgrowth of these studies. Lambertsen's pur-Pose is to clarify the role of the professional nurse leader, to identify principles of professional education necessary to prepare this nurse leader, and to make suggestions for identifying and implementing learning experiences consistent with nursing of a genuinely professional character. The studies were done in hospitals, but the author states that the functions of leadership are the functions of the professional role of the nurse in any social setting or in any field of nursing

Dr. Lambertsen first reviews the history of nursing and nursing education in the

United States from the opening of the first Nightingale schools in 1873 to the present, thereby bringing into awareness certain social and occupational factors which have had a major influence on nursing education. She then discusses the changing character of the professions and of professional education, and ways these have affected present concepts and functions of nursing. She points to two major problems that have recently occupied nursing leaders: To differentiate satisfactorily the activities of nursing and to gain widespread acceptance among practitioners of the differentiation as a step toward professionalism. On the basis of her experience and observations, the author assumes that there are common elements in all nurse-patient relationships which vary only in degree, regardless of the diagnosis of the patient. She sees comprehensive nursing as a systematic process of diagnosing and analyzing the nursing problem, developing a plan of nursing care, and continuously assessing the nursing care given. Her experience in team nursing strengthened her belief that competence of the nurse leader requires education of a professional rather than a technical nature. The theme throughout the book is that the quality of nursing care depends upon the knowledge, judgment, skill, and values of those who give the care.

Finally, the author elaborates upon the principles of nursing care, gives examples of teaching materials, and makes concrete suggestions for preparing nurses to assume leadership functions. She makes a strong case for the superiority of professional education in a college or university setting as preparation for nursing leadership.

This book is not an apology or an excuse for present conditions; neither is it an attempt to prove that nursing is a profession. The author states that the question of nursing as a profession will have to be answered by demonstration and practice, rather than verbally. She takes the stand that the professional status of nursing depends more upon the competence of the individual practitioner than upon generali-

zations about one particular segment of this occupational group. It is clear that the author is aware of present shortcomings and future problems in nursing. No effort is made to gloss over present nursing care practices. Instead, the author accepts the situation as it is, starts from there, and offers specific, practical suggestions to nurses and nurse educators for pulling themselves up by their bootstraps. She refutes such excuses as "nursing shortage" and "nurses are different" and deals with fundamental issues. She looks beyond the present situationwhat nursing practice currently is-to what it should be. She urges nurse educators and practitioners to do likewise-to establish precedent, think how it should be, then set about trying to do it—rather than allow themselves to be bound by tradition and conformity to the immediate situation. The book is organized in such a way as to be easily read. Unfortunately, no index is included.

Education for Nursing Leadership is a call for professional rather than technical preparation for the nurse engaged in giving and planning patient care. It is not a book of final answers. Rather, it is intended to present a challenge, offer encouragement, and stimulate further improvement of patient care. Certainly those who are engaged in nursing education stand to benefit from the guidelines for professional study which the author has proposed. A book offering pertinent suggestions for the improvement of nursing education is a timely addition to nursing literature. When such a book is written by a person with the breadth of experience and depth of understanding possessed by Eleanor Lambertsen, it becomes not only timely but also significant.

JEAN HAYTER Medical College of Virginia

Values in Culture and Classroom, by H. Otto Dahlke. New York, Harper and Brothers, 1958. xvii + 572 pp. \$6.00.

Those committed to the relevancy of educational sociology to educational prob-

lems will welcome Professor Dahlke's new book with restrained exhilaration. As the title implies, his primary focus is on values as determinants for educational practice, and this is, in itself, a substantial contribution. His absorbing use of sociology as a context in which to explore this core problem at once increases our profits. The author provides us with the additional happy dividend of confronting certain realities about schools, teachers, and communities without being churlish or disheartened.

The position advanced by the volume is that educators must recognize the problem of relating values and norms to actions and decisions in the day-to-day arena of the classroom. Dahlke insists there is a need for extensive salesmanship to stress the central significance of this premise. He is, of course, entirely right if one seeks endorsement of the view that good teaching is essentially problem-solving behavior, that teaching is based on the adequate diagnosis of diverse situations, all involving value systems, and that the good teacher selects appropriate professional procedures in the light of these diagnoses.

The perspective Dahlke uses is to examine the school and its participants as a social system in which most occurrences can be categorized as of either a normative or a functional order. Values are made specific and effective through norms, he asserts, and these norms stimulate relationships with the variety of activities performed regularly in the school; these latter active operations are classed as the functional order. The quality and kind of decisions in the functional order, he continues, are the conscious or unconscious results of the normative order; the interrelationship is implicit, whether or not it is acknowledged by educators.

Since the school is the formal institution society has erected to carry out many aspects of the socialization process, society's beliefs achieve institutional expressions, and these expressions, or norms, prescribe roles, statuses, and programs of social interaction for the school. The normative order dis-

burses what should happen, defining the appropriate functional order. Dahlke's documentation of the phenomena of each order serves to aid educators in making more accurate judgments about the internal consistency they should build into these two orders.

The workmanlike appraisal of the normative and functional orders is enlivened by the author's delightful, and often parenthetical, observations on the fabric of school life. These asides are convincing evidence that the author arrives at his subject with more than a handful of personal experiences, which enrich his technical commentaries and raise them from the pedestrian level usually conspicuous in books in this field.

Three particularly congenial features of this book which seem to merit emphasis are the discussions of the utilization of community studies, the relationship of architecture to program, and the examination of the role of the teacher in the bureaucratic structure of the school. In the first instance Dahlke has used community studies of Chicago, Seattle, and comparable cities—studies constructed by community agencies for other than school purposes—and has shown how these studies produce valid evidence to illuminate educational issues. As the traditional concepts of "community" decline in utility, the sociologist's use of human ecology clarifies the impact of community fragmentation. For example, both the unique school situations which arise in the ruralurban fringe, and the concentrations of religious and ethnic groups in large urban centers imply a need for certain kinds of special consideration by educational leaders as Well as classroom teachers. Community studies, the author claims, can provide valuable keys to solutions.

Secondly, Dahlke develops such a relevant case for the imperative influence of architectural decisions on the normative and functional orders that it cannot fail to istence of a third order, the material order, consisting of the objects, things, and arti-

facts of the school culture which should apparently reflect the other two orders but frequently seem to exist by and for themselves. He is bothered by the detachment from the mainstream of educational ideas of questions on buildings, classroom arrangements, furniture, and other teaching equipment, for it is obvious that the material order can restrict or expand the natures of the normative and functional orders.

The author's inclusion of the operation of a bureaucracy in a school is a particularly fruitful inquiry into teacher-administrator interpersonal relationships, and teacher-pupil problems. That the schools have tended to accept the particular principles of an industrial bureaucracy is evident in the kinds of stresses such an application of bureaucracy produces in education. A solution is proffered, but with little vigor. Dahlke suggests the inappropriateness of an excessive superstructure of bureaucratic administration for autonomous professionals, following Moehlman's earlier analysis, but lets the matter drop as if he were wary of the sweeping implications of what appears to be a completely logical conclusion.

It seems worth while to call attention also to Chapter 15, "Reputational History and Evaluation in the Schools," for this discussion points to some interesting factors in the continuous processes of evaluation which develop reputational histories for children.

Only in Chapter 3, "Value Orientations, Social Models and Education," does Dahlke show a weakness for oversimplification. His abrupt sentences describing value orientations, some of which he clearly abhors, quickly produce caricatures, overdrawn perhaps for emphasis, but unfortunately biased. In the same section, one could wish for greater historical perspective, if only to indicate the ponderous development of the various value systems the author identifies. One might also argue with his delineations of value orientations and social models, feeling the desire both to gerrymander the boundaries between orientations and to dispute the discreteness of the social models he

selects as significant. These difficulties could be, however, the result of time and space requirements, just as is the brevity of his discussion of the school as the center of controversy in Part VI. These weaknesses are not overriding deterrents, as both sections seem to have a prefix and suffix relationship to the main text. The many assessible ideas of the book, plus the extensive footnotes and bibliographies, easily assure value of goods received.

The justification of Dahlke's book lies in his attentiveness to his central theme. It is probable that the reader will have some familiarity with the surface issues of the sociology of the school, but Dahlke frequently probes deeper, precisely because he pays attention to his own observations. It may be that this is enough significance to ask of any book.

Donald R. Thomas University of Wisconsin

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FROW FROM

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James Madison, the Bill of Rights, and Education*

R. FREEMAN BUTTS

WILLIAM F. RUSSELL PROFESSOR IN THE FOUNDATIONS OF EDUCATION TEACHERS COLLEGE, COLUMBIA UNIVERSITY

The time was just ten years ago, and the occasion was my search (in a university library reading room) into the historical backgrounds of the American tradition of religion and education.

Scholars and public alike at that time were vigorously debating the historical meaning of the First Amendment to the Constitution as it related to education. The Supreme Court's decision in the Everson case of 1947 had provoked heated opposition, and the Court was being charged with secularizing our society by a false interpretation of our history and of the Constitution. Still greater hue and cry was raised over the McCollum case in 1948, when the Supreme of religious instruction in Champaign, Illinois, was unconstitutional under the

*Based on a talk before the Institute for Religious and Social Studies, New York City.

First Amendment. Charges were again hurled at the Supreme Court for misreading history, confounding the founding fathers, misinterpreting the Constitution, interfering with states' rights, and promoting an alien secularism in Ameri-

can government and society.

This setting had led me, along with many others, to look again at the origins of our religious tradition, our constitutional liberties, and their meaning for education. I had arrived at that point in my investigations when I was wading through the debates in the House of Representatives of June 8, 1789. The question was what to do about amending the Constitution. James Madison had drawn up several proposals for amendment and had moved that the House resolve itself into Committee of the Whole to consider them. But there was much objection and much wrangling as to procedure.

He proposed, first, that several clauses be inserted in Article I, Section 9, of the Constitution. This is the section that puts limits upon the powers of Congress. Madison proposed that the following clause on religion should be inserted immediately after the guarantees of habeas corpus and prohibition of bills of attainder and ex post facto laws:

The civil rights of none shall be abridged on account of religious belief or worship, nor shall any national religion be established, nor shall the full and equal rights of conscience be in any manner, or on any pretext, infringed. (p. 451)

The emphasis here is upon the civil rights of religious belief and worship as natural, inalienable rights that could not be abridged by Congress. The strongest emphasis is put upon full and equal rights of conscience. The linkage of freedom and equality required that government not enter into the realm of religion in any manner or on any pretext. Before the law, one person's religious views or lack of them are to be deemed equal in rights to those of any other person. The government could not make distinctions or indicate preferences or priorities of one religion over another or prefer religion to the lack of it. Each individual was to be the judge of his own religious beliefs, and his conscience was to be respected even if he had no religious beliefs in the usual sense or even if he had anti-religious beliefs.

Promotion of religion by government was outlawed if any individual claimed that his rights of conscience or any part of them were being jeopardized. If Madison's wording had been accepted, I do not see how anyone could argue that government could promote one religion over another or religion in general rather than non-religion. Madison used the phrases equal rights of conscience and

liberty of conscience almost interchangeably. Not only was the individual to be free from governmental interference with his religious beliefs, he had the right not to be the subject of discrimination because of his beliefs, and his other civil rights were not to be put in jeopardy because of his religious beliefs or associations or lack of them. If one's rights of conscience are equal to all others, the absence of a particular or any religious belief does not prejudice his standing in law when compared with those who do have religious beliefs. I do not believe Madison would have agreed with Justice Douglas' opinion in the Zorach-Gluck case.

Madison even went so far in his proposed amendment about the right of the people to keep and bear arms that he would have protected religious conscience as follows:

of bearing arms shall be compelled to render military service in person. (p. 451)

It is possible, therefore, to argue that Madison might have applied a similar protection for the civil rights of religious conscience in the schools, if education had been a matter of debate at the time. Indeed, he had faced the issue of public secular schools versus private parochial schools in the contest in Virginia over religious assessments for religious teachers just four years earlier. At that time he fought against public support for the religious clergy who ran most of the private schools.

Before leaving Madison's proposals for limiting the powers of Congress it is interesting to speculate about two of his other statements in the light of congressional committee attacks in recent years upon teachers and intellectuals for their beliefs and writings. Madison's first ver-

sion of the freedom of speech and press clauses of the First Amendment was as follows:

The people shall not be deprived or abridged of their right to speak, to write, or to publish their sentiments; and the freedom of the press, as one of the great bulwarks of liberty, shall be inviolable. (p. 451)

If Madison's more detailed and more explicit version had been accepted, would teachers and researchers have had a better chance to claim their rights of free inquiry, intellectual freedom, and academic freedom in the face of accusations and inquisitions? Would authors and writers have had more protection against the black-listing and the book burnings? Would the special loyalty oaths for teachers and security programs for government workers have been less severe and less damning to personal reputations and to intellectual occupations? I can only say that a wider acceptance of the spirit of Madison's proposals might have helped.

And when we come to Madison's version of the Fifth Amendment it is highly suggestive to note that he proposed:

No person . . . shall be compelled to be a witness against himself. (p. 452)

This sounds like broad protection against requiring incriminating testimony in any kind of investigation. It was not limited to criminal cases in courts, as the final If it had stood as Madison framed it, it might not have been so easy for the consame to the pleaders of the Fifth Amendlimited to criminal cases in courts, it procongressional inquisitions into association might have been more easily invoked to

prevent abuse of such inquiries. These are, of course, speculations, but I believe they do stir the imagination—at least they did mine. I believe Madison would have agreed with the Supreme Court in the Watkins and Sweezy cases, when it ruled that congressional investigating committees could not properly invade the realm of private affairs without clear justification or invade the area of academic freedom and political expression.

Now we come, finally, to the questions about the relation of the federal constitution to the states and to the role of the federal courts. In recent years these questions have been at the heart of educational controversies over religion and education, segregation in education, and federal aid to education. Madison was not talking directly about education, but he certainly was talking about the fundamental problems of states' rights and the civil rights and civil liberties of individuals.

To pick up first the religious question specifically, it is noteworthy that Madison was anxious to put limits upon the states as well as upon the Congress. He proposed that the following clause be inserted in Article I, Section 10, which limits the powers of the states:

No state shall violate the equal rights of conscience, or the freedom of the press, or the trial by jury in criminal cases. (p. 452)

If Madison's proposals had been adopted, the original bill of rights of the Constitution would have made a start on what the Fourteenth Amendment was later intended to do when it prohibited the states from depriving any person of liberty without due process of law or from denying any person the equal protection of the laws. It could not have been argued that the First Amendment applies only to the Congress and not to

the states. Madison's proposal would have asserted the power of the federal constitution over questions of liberty and equality in the states and might have shortened the long and involved judicial procedures that have accompanied the interpretations of the First, Fifth, and Fourteenth Amendments over the past several decades.

Listen to Madison himself on this point:

I wish also, in revising the constitution, we may throw into that section, which interdicts the abuse of certain powers in the State Legislatures, some other provisions of equal, if not greater importance than those already made. The words, "No State shall pass any bill of attainder, ex post facto law," &c. were wise and proper restrictions in the constitution. I think there is more danger of those powers being abused by the State Governments than by the Government of the United States. The same may be said of other powers which they possess, if not controlled by the general principle, that laws are unconstitutional which infringe the rights of the community. I should therefore wish to extend this interdiction, and add, as I have stated in the 5th resolution, that no State shall violate the equal right of conscience, freedom of the press, or trial by jury in criminal cases; because it is proper that every Government should be disarmed of powers which trench upon those particular rights. I know, in some of the State constitutions, the power of the Government is controlled by such a declaration; but others are not. I cannot see any reason against obtaining even a double security on those points; and nothing can give a more sincere proof of the attachment of those who opposed this constitution to these great and important rights, than to see them join in obtaining the security I have now proposed; because it must be admitted, on all hands, that the State Governments are as liable to attack these invaluable privileges as the General Government is, and therefore ought to be as cautiously guarded against. (p. 458)

I believe that Madison would have supported the Supreme Court in apply-

ing the federal constitution to restrict the powers of the states in the Everson and McCollum cases and in the segregation cases.

Madison said several times that the "great rights," "those choicest privileges of the people," were liberty of conscience, freedom of the press, and trial by jury. These should therefore be doubly protected in both federal and state constitutions. But Madison went much further than this. He spoke at some length on the desirability of looking upon the federal bill of rights as a corrective of the bills of rights in the state constitutions. In the realm of civil liberties and civil rights, Madison clearly felt that the federal power should be supreme not only in law as interpreted by the federal courts but as a molder of public opinion in the community.

Madison believed that the protection of the rights of the people could not be left to the states alone. In our time, when it is urged that the relation of religion and education should be a local and state matter, that the question of segregation in the schools is a local and state matter, and that educational control and support are local and state matters, it is important to remember that Madison would not have left the people's rights of freedom and equality exclusively in local and

state hands. Listen to him:

there are others provided with very defective ones, and there are others whose bills of rights are not only defective, but absolutely improper; instead of securing some in the full extent which republican principles would require, they limit them too much to agree with the common ideas of liberty. (p. 456)

In other words, republican principles and common ideas of liberty should take precedence over the will of local and state majorities. The best protection is to

be found when bills of rights in the state and federal constitutions agree, but when they disagree, the federal constitution should be the corrective for the states. Listen again to Madison:

But whatever may be the form which the several States have adopted in making declarations in favor of particular rights, the great object in view is to limit and qualify the powers of Government, by excepting out of the grant of power those cases in which the Government ought not to act, or to act only in a particular mode. They point these exceptions sometimes against the abuse of the executive power, sometimes against the legislative, and, in some cases, against the community itself; or, in other words, against the majority in favor of the minority.

In our Government it is, perhaps, less necessary to guard against the abuse in the executive department than any other; because it is not the stronger branch of the system, but the weaker: It therefore must be levelled against the legislative, for it is the most powerful, and most likely to be abused, because it is under the least control. Hence, so far as a declaration or rights can tend to prevent the exercise of undue power, it cannot be doubted but such declaration is proper. But I confess that I do conceive, that in a Government modified like this of the United States, the great danger lies rather in the abuse of the community than in the legislative body. The prescriptions in favor of liberty ought to be levelled against that quarter where the greatest danger lies, namely, that which possesses the highest prerogative of power. But this is not found in either the executive or legislative departments of Government, but in the body of the people, operating by the majority against the minority.

It may be thought that all paper barriers against the power of the community are too weak to be worthy of attenion. I am gentlemen of every description who have seen and examined thoroughly the texture dency to impress some degree of respect in their favor, and rouse the attention of

the whole community, it may be one means to control the majority from those acts to which they might be otherwise inclined. (pp. 454-55. Italics added.)

Here is a clear vision of the positive role of a free government in protecting the rights and liberties of individuals. Freedom is not merely something to be protected against invasion by government; it is something that governments must protect against violation by one group or individual at the expense of others in the community. States should protect local minorities against local majorities. But, also, the federal government must protect minorities in a state against majorities in a state. And I imagine the logic of Madison's position would certainly apply this principle to protection of Negro minority rights against white majorities in the Southern states today.

As the Supreme Court and federal courts in recent years have ruled against local and state majorities on questions of religion, segregation, loyalty oaths, and the other freedoms of speech and belief, I think Madison would have approved, for he said:

If they [bill of rights] are incorporated into the constitution, independent tribunals of justice will consider themselves in a peculiar manner the guardians of those rights; they will be an impenetrable bulwark against every assumption of power in the legislative or executive; they will be naturally led to resist every encroachment upon rights expressly stipulated for in the constitution by the declaration of rights. Besides this security, there is a great probability that such a declaration in the federal system would be enforced; because the State Legislatures will jealously and closely watch the operations of this Government, and be able to resist with more effect every assumption of power, than any other power on earth can do; and the greatest opponents to a Federal Government admit the State Legislatures to be sure guardians of the people's liberty. I conclude, from this view of the subject, that it will be proper in itself, and highly politic, for the tranquillity of the public mind, and the stability of the Government, that we should offer something, in the form I have proposed, to be incorporated in the system of Government, as a declaration of the rights of the people. (p. 457)

I can only wish that education had been explicitly in Madison's mind on June 8, 1789. Let us imagine that it was. Perhaps the italicized words might have been added to some of the amendments.

His proposal for the Preamble might

have read:

"Government is instituted and ought to be exercised for the benefit of the people; which consists in the enjoyment of life and liberty, with the right of acquiring and using education and property, and generally of pursuing and obtaining happiness and safety."

His proposal for part of the First

Amendment might have read:

"The people shall not be deprived or abridged of their right to speak, to write, to teach or learn, or to publish their sentiments; and the freedom of the press, of teaching and of learning, as the great bulwarks of liberty, shall be inviolable."

His proposal for the Second Amend-

ment might have read:

"A free and equal system of education and a well-armed and well-regulated militia being the best security of a free country, the right of the people to establish schools and the means of education or to keep and bear arms shall not be infringed."

The Fifth Amendment might have

read:

"No person shall be deprived of life, liberty, education, or property, without due process of law."

The Eighth Amendment might have read:

"Excessive bail shall not be required nor excessive fines imposed, nor cruel and unusual punishments inflicted, nor special oaths or tests of loyalty or religion be required of particular classes of citizens not required of all."

And finally Madison's proposals for limitations upon states might have read:

"No state shall violate the equal rights of conscience or of education, or the freedom of the press or of teaching and learning, or the trial by jury in criminal cases; and the people of the several states shall forever maintain public systems of education based upon and designed to promote the principles of freedom and equality as set forth in the declaration of the rights of the people."

Madison did not make these statements about education, nor would they probably have been approved by the Congress of 1789, but I believe they are in the spirit of Madison's proposals. They would not automatically have solved our problems, but I believe they would have had a tendency "to establish public opinion in their favor, and rouse the attention of the whole community." Inasmuch as explicit references to education were not made in the bill of rights, let the educational profession take up the task and work harder than ever to apply Madison's view of the Bill of Rights to education. We might start by insisting in principle and in practice that freedom for education and for teachers is as important as are the other freedoms of the First Amendment; that education is as precious a possession of the individual as are the other rights of the Fifth Amendment; and that a free and equal system of public education is as essential to a republican form of self-government as are responsible executives, elected legislatures, and independent courts.

Progressive Education and American Progressivism: Caroline Pratt*

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HE Progressive Era, in its classic defi-nition by Gabriel, spanned the years of peace between the Spanish American War and World War I. The progressivism of the era he found to be a social philosophy anchored in the idea that men can remake the world through the use of their intelligence. It was an era, then, when progress meant clearing slums and reducing social injustice, economic panic, and misuse of power either by businessmen or by politicians. Such urban reformers as Jane Addams (of Hull House, the paradigm of Settlement Houses) and Jacob Riis, who pioneered in slum clearance, were joined in progressive reform by the Women's Trade Union League, aiming at the amelioration of the sweatshop conditions rife in the ladies' garment industry. There were others, principally the muckrakers exposing venality in politics, corruption in high places and in low. Felix Adler, leader of The Ethical Culture Society, chose education as his weapon to effect social reform.

by Professor Beck which will be published in The Record. For a discussion of Felix Adler's see the November 1958 Record.

Ralph Hammet 1958 Record.

Ralph Henry Gabriel, The Course of The Ronald Press Company, 1940), p. 332.

However bitter the muckraker attacks on monopoly practices in big business or the ritual of city politics acted out by New York's Tammany Hall, the progressives were optimistic reformers. They were certain that men could be reasonable and, when presented with the facts, would "drive the rascals out." The faith was the faith of the Enlightenment and the voice was the voice of John Dewey. Dewey was the liberal, primus inter pares, whose social philosophy could be heard and read wherever progressives were at work. At least this was true for a decade, even two, prior to the end of World War I. Then, for another decade, his word was less attended. Indeed, a hush had fallen over progressive movements. In Professor Gabriel's terms, the Progressive Era had ended. Wilsonian idealists were disillusioned by the punitive features of the Treaty of Versailles and by the failure of the United States to enter the League of Nations. Lincoln Steffens spoke for the muckrakers, disillusioned by the failure of their exposés to impressively reduce social evil.

Americans had been given facts, but rascals stalked both public forum and market place. Progressivism ebbed. Disillusion spread among the intellectuals who had been its bulwark.² Ideals of so-

² One of the several fin de siècle observations

Dated

cial progress were viewed by the more cynical with raised eyebrows. To the most cynical and sophisticated, France exported Dadaism, a nihilistic literary movement laughing ideals to scorn. A few of the literary and artistic abandoned the country and took up residence in Paris, many of them on the Left Bank. Dewey himself spent years away from the United States traveling in Mexico, Europe, and the Far East.

There was a lull in progressive thought for the duration of the "roaring twenties." It was but a lull. The break in the stock market in 1929 opened almost ten years of economic uncertainty and a revival of progressive social conscience. Reformers resumed the podium, spreading a social gospel that was the analogue of the old humanitarianism of 1890-1919. Once again Dewey returned to orchestrate liberal thought.

Was there any progressivism during the twenties? There was; it had effect on progressive education of the day, but it was not an unadulterated social gospel. Along with urges to social reform went a more audible plea on behalf of the individual. The new progressivism asked somewhat less of social reform and more of the conditions that would make for originality in the *expression* of individual men. Not all and any expression was a matter of concern; artistic self-expression was the desideratum.

Caroline Pratt and her Play School in Greenwich Village, New York City, coupled during the twenties and thir-

typical of the disillusionment was that of Krutch, philosopher and critic, who wrote in melancholy vein regarding humanism: "Ours is a lost cause and there is no place for us in the natural universe, but we are not, for all that, sorry to be human. We should rather die as men than live as animals." Joseph Wood Krutch, *The Modern Temper* (New York: Harcourt, Brace and Company, 1929).

ties the traditional progressivism of social reform with the burst of attention to freedom for individual self-expression.

Born in Fayetteville, New York, in 1867, Caroline Pratt had only one experience in formal teacher training that she carried over into her radical educational departure. While a student at Teachers College, Columbia, she had watched Patty Hill's kindergarteners playing with blocks.

She had designed the blocks herself, for the children in her classes to use during their free periods. They were not a part of her teaching program, but I had watched what the children had done with them during those short play periods when they could do what they liked. To me those play periods seemed the most important part of the school day.

Of all the materials which I had seen offered to children... these blocks of Patty Hill's seemed to me best suited to children's purposes. A simple geometrical shape could become any number of things to a child. It could be a truck or a boat or a car or a train. He could build buildings with it, from barns to skyscrapers. I could see the children of my as yet unborn school constructing a complete community with blocks.³

Little else at Teachers College in 1892 caught Miss Pratt's attention. Indeed, her instructors found her so inept in methods approved for teachers of the young that she was shifted into manual training, where delicacy was less asked than strength. The manual training proved to be more useful to Miss Pratt than she could have believed when she studied to "saw to a line." She learned to work with wood, to make the neat joint she was to use in designing and fabricating her own toys for the "play-way" of education. Multiple-purpose toys would need to fulfill her dream of chil-

³ Caroline Pratt, *I Learn from Children* (New York: Simon and Schuster, 1948), p. ²⁹.

dren constructing a world which they had seen, smelled, and understood while adventuring through the streets of New York.

Caroline Pratt went off to her first teaching assignment, instruction in manual training in the Normal School for Girls in Philadelphia. What she had been taught to teach satisfied her not at all. The more dexterous succeeded in reproducing the standard models, but there was no chance of learning to make what might be interesting and useful. This seemed futile, and even a summer in Sweden at the Sloyd School gave it no more significance. The imaginative Miss Pratt speculated on another view of preschool education.

I dreamed of a child world in which railroads and city streets, farms and factories, the stuff of which the real world is made, could be brought down to children's scale so that they might grasp it. I had envisioned a community of children who could, in their own way, through the child activity which we misguidedly call play, reproduce this world and its functioning. Such a community of little individuals, equals in size and strength and understanding as adults are equals in their own adult communities, would learn not only physical truths about the world, but social truths as well, the allimportant truths of people with many individual and work vidual differences who must live and work with each other.4

The play Caroline Pratt envisaged was to be play, but play directed to gaining knowledge of the environment. In it, creative imagination was to combine with planning, manipulation, and construction to produce an "educative experience." So close did this run to

Dewey's own view of education that Evelyn Dewey was delighted with what she found in a visit to the then new Play School.⁵

The abandonment of a career in Normal School was not a difficult decision to make. The Philadelphia Normal School was a cul de sac from which the way of escape was suggested to Miss Pratt while she was on a visit to a couple who had a six-year-old son. One day she found the boy busy at play in his nursery. Watching him provided ". . . an experience which deeply affected all my subsequent thinking."

On this occasion I found the floor covered with a miniature railroad system. He was building with blocks, toys, odd paper boxes, and any material he could find. Some of it was obviously salvaged from the wastepaper basket. As I watched him push his freight train onto a siding while a fast express roared by to stop at a station where lines of passengers and automobiles were waiting, as I listened to the unceasing accompaniment of happy noises in realistic imitation of train whistles and bells and automobile horns-it seemed to me that this child had discovered an activity more satisfying to him than anything I had ever seen offered to children . . . I thought that this was one little boy's way of learning about the world he lived in; he had observed for himself, had gathered his facts, and was here, before my eyes, writing the perfect child's textbook of what he had seen. Here, in a combination of map, model, and working drawing with sound track-such a combination as had never existed in any classroom, more's the pity-he was setting down his understanding of the way things worked, the relationships of facts to each other, the causes and effects, the purposes and func-

⁴ Ibid., p. 27. See also, Caroline Pratt and Jessie Stanton, Before Books (New York: Adelphi "The Play School, P. 11, and Caroline Pratt, tion," in Schools Grow, Marjorie Page Schaufter, editor (New York: Bureau of Educational Experiments). Unpublished and undated.

⁵ John Dewey and Evelyn Dewey, Schools of Tomorrow (New York: E. P. Dutton and Company, 1915), pp. 117-22. This visit probably was made in 1914. John Dewey and his daughter, Evelyn Dewey, published their Schools of Tomorrow in 1915 and Miss Pratt first tried her radical plan in the spring of

⁶ Pratt, I Learn from Children, p. 23.

tions. This was thinking, this was learning. This was the way a young child, if freed to do so, would go about educating himself on the subject which was of most immediate, intense interest to him-the world in which he lived.7

II

In this record of her vision in 1912 and 1913 there is appreciation of Dewey's conception of learning-by-inquiry linked with construction or, when most sophisticated, experimentation. But problem-solving à la Dewey far from preempts what can be read from this remembrance of early stimulus. The imaginative quality of the reconstruction is not stressed in Dewey's own early writing. Even in his later Art as Experience, Dewey portrays imagination as quite the same as the thoughtful consideration of a scientist engaged with a problem. The artist, Dewey proposed, addresses himself to a problem of design, of texture, of sequence of sound, of balance, modulation, and harmony. If his composition is "good," the problem is resolved for him. Miss Pratt may be thought to be in agreement when she was but agreeing that this problem-solving is part of the child's play with blocks.8 He is solving the problem of re-creating something standing for the things in the world he has experienced. But what Miss Pratt noted was his feeling expressed in the reconstruction. The constructive activities of the Play School exemplified the "expressionism" that the artists knew in the Greenwich Village that surrounded

7 Ibid., p. 27.

The thought of the above parallels that of Dewey in his Art as Experience.

the school. These artists pondered expressionism and many were drawn to it who did not wish to reproduce what they saw but only to present their own feelings that were a response to the world. The little children in the Play School were expressionists.

In their Before Books, Caroline Pratt and Jessie Stanton, who was a teacher alongside Miss Pratt for many years, record the expressionism inherent in children's play. At one time six-year-olds were dramatizing or playing at being animals-"The Little Gray Pony" or "Spot." The notes made by the teacher show that the play was spontaneous, not staged; the action, dramatically speaking, was realistic. When it was over, the teacher remarked, "Richard told me he was 'really a little scared' when Celia, as the big black cat 'spitted' at him."9

Perhaps the children had gone to the harbor when the fog was in and the horns of the boats boomed all about, Back in school the "Fog Boat Story", was played in the same spirit as "Spot." The children made their blocks and boxes into boats; they themselves manned the ships. The drama revolved about getting a liner into the deep water of the harbor. The whistles and fog horns sounded as the "boat" was maneuvered from the dock. "The pilot finally left the liner, and its whistle was blown more and more faintly as it disappeared in the ocean."10

On any number of occasions Miss Pratt remarked that these visits to the harbor or to the market would stimulate creative responses among the children. Her belief, it should be remembered, ran counter to the prevailing thought that children would develop imagination, taste, and sensitivity if appropriate lit-

10 Ibid., p. 143.

⁸ The extent of agreement of Miss Pratt with Dewey can be read out of her description of a child creating. "He starts out with an idea . . . an idea which he needs to clarify through his method of dealing with it. . . . Such a method is a method of thinking." Pratt and Stanton,

⁹ Ibid., p. 141.

erature was read to or by them, if appropriate pictures were shown to them, and if the activities of the school included sufficient rhythms and rhymes. Miss Pratt, on the other hand, viewed the matter of becoming creative as a result of attempting to interpret the world experienced by means of painting, gesture, word, or music. It was when the Play School occupied quarters in Mac-Dougall Alley, the very heart of Greenwich Village, that Miss Pratt became convinced that creativity was not something given chidren through literature, music, or dance. Her own statement of the viewpoint at which she arrived is strong.

Instead of literature being the spur to children's imagination, we have found that it is quite the other way round—it is their imagination which stimulates the creation of literature! A child who has been read a story about a fairy living in a flower is far less likely to turn up with a story of his own than a child who has seen a tugboat on the river. The more closely he has observed the tugboat, the more deeply he has been stirred by it, and the more eagerly and vividly he will strive to re-create it, in building, in drawing, in words. He will not need to borrow the phrases for his creation from literature. He will find them inside himself; he will search them out and put them together, in his urgent need to express a moving experience, and to relive it in the act of re-creating it.11

Borrowing terminology from modern art, Miss Pratt was running together elements of both impressionism and expression: sionism. The children re-created what they had experienced, but the re-creation Was not a mirroring; it was interpretation, a personal account of environmentas-felt. What results in the block city, as Miss Pratt saw it, is the outcome of the child's attempt to deal with his idea of the city he experienced. It is as

¹¹ Pratt, I Learn from Children, p. 78.

much thoughtful expression as recording of impression. Neither impressionism nor expressionism, she thought, acts alone in the child's mind.

All the while Miss Pratt worked to clarify her conception of the balance between impressionism and expressionism in children's thoughtful play, the artists resident in Greenwich Village debated the role of impressionism and expressionism in their own aesthetic lives.

At first the philosophy of education emergent in the Play School and the aesthetic theories eddying through Greenwich Village went their ways unrelated. Miss Pratt had not come to Greenwich Village in order to open a school putting into practice the spirit of freedom and individuality indigenous to modern art. What drew her to the Village were the low rents and the chance of doing something for the children of the poor. It was humanitarianism, typical of the old Progressive Era, that brought her first to Hartley House, a settlement on New York's west side, then to a threeroom apartment converted to a school at the corner of Fourth and Twelfth Streets. But there, and subsequently in MacDougall Alley, and finally in the present home of her school on West Twelfth Street, Miss Pratt met the artists of the Village and, to her delight, was warmly welcomed by a group known for their critical rejection of the ordinary and the substandard in thought and surely in feeling.

She knew that there were numbers of artists and writers in Greenwich Village but the fact was quite peripheral.

For me the neighborhood of Fourth and Twelfth Streets was peopled by old Ninth Ward residents, hard-working members of the humbler professions, street cleaners and plumbers and white collar folk of modest levels, the respectable poor. There was a high percentage of for eighborhood. 12

Humanitarianism had led Caroline Pratt to Greenwich Village, where both artists and "hard-working members of the humbler professions" lived because the rents were cheap. The desire to lead men to a better society had not come to Miss Pratt from her teacher training. In the days of her schooling, teacher training was completely devoid of anything that smacked of social conscience. The touch of progressivism had been imported from her extracurricular life. While in Philadelphia, in her off-hours she had met an unusual young woman who proved to be her guide in marking a course into her professional future. This guide, as Miss Pratt came to call her, was Helen Marot, at a later time co-publisher of The Dial, on whose editorial board both John Dewey and Thorstein Veblen served. I Learn from Children is dedicated to Helen Marot, unquestionably Miss Pratt's closest friend for many years.13 Helen Marot infused Caroline Pratt with the progressivism that brought her to a humanitarian trial in education in Greenwich Village. When first they met, Miss Marot, of Quaker background, ran a library in Philadelphia. Later she became known ". . . for her work in the organization of the Women's Trade Union League in New York, and for her two books on labor, American Trade Unions and Creative Impulse in Industry." 14 In the Philadelphia days, some of Miss Marot's time was spent in her library and some in investigations into the ladies' garment industry.

12 Ibid., p. 40.

The library of Miss Marot "...had become a center of liberal thought in Philadelphia. People of all shades of radicalism came there, Single Taxers, Socialists, philosophical anarchists, attracted by the unusual books and periodicals and no less by the opportunity for discussion." ¹⁵

The discussions that turned to the latest progressive thought on how to ameliorate the lot of the poor, how to mitigate social injustice, involved Miss Pratt more and more deeply.

During my last year in Philadelphia I worked only half time at the Normal School. The other half was spent in helping Helen Marot in an investigation of the custom tailoring trade, the results of which were later published in a United States Department of Labor bulletin.¹⁶

The trips to the homes where the manufacture of ladies' shirtwaists actually was done were truly traumatic.

It was for me a bitter eye-opener, that experience. The work was done in the home, with no limit to the hours the people worked, and no check on the working conditions—which were also living conditions, and which from both points of view were appalling. The contrast with educational practice as I knew it was painful. Helen and I often discussed the futility of trying to reform the school system, if after leaving school human beings had to earn their living under such conditions as these. . . . It seemed to me that a school's greatest value must be to turn out human beings who could think effectively and work constructively, who could in time make a better world than this for living in."17

It was this experience under the guidance of Helen Marot that turned Caroline Pratt squarely to the mission of educating the children of the poor, the future proletariat. A generation earlier Felix Adler had taken an identical road and opened in New York City the

¹³ This and a number of other details of Miss Pratt's career were learned during an interview with her at her school on January 3, 1941.

¹⁴ Pratt, I Learn from Children, p. 18.

¹⁵ Loc. cit.

¹⁶ Ibid., pp. 18-19.

¹⁷ Ibid., p. 19.

Workingman's School and Free Kindergarten, the first American school unequivocally governed by a philosophy

attuned to progressivism.

The year was 1913 and Miss Pratt had her first class of six five-year-old children at Hartley House. The large room she needed was in constant use for the Settlement's own projects and Miss Pratt had to find new quarters. A friend, Edna Smith, came to the rescue and paid the rent for a three-room apartment at the corner of Fourth and Twelfth Streets. Edna was also a worker in the progressive labor movement. "I had come to know Edna," Miss Pratt recalled, "in our common work for the Women's Trade Union League. Her bent toward social thinking made her an eager advocate of the rights of children."18

It was not easy to persuade the parents of the old Ninth Ward to send their children to a school where they did nothing but play with blocks. Miss Pratt remembered the problems when she looked back about thirty-five years, to the days when the Play School became the City and Country School and very well known, at least on the East Coast. "I foresaw plenty of difficulties in establishing such a school as I planned. Parents would be wary—and why not? of offering their children as subjects for experiment. There would be the inevitable, deep-seated resistance to anything new."19

Only one group of parents were pleased when they heard that the object of Miss Pratt's Play School was to permit children to be imaginative in recreating and learning about their environment. These were the artists in Greenwich Village, about whom Miss Pratt knew but little. Of course she had

heard of Bohemianism in the Village but knew the laborers better. Her knowledge of the artistic life came from visitors who lived outside the Village. In her own account of the early years of the Play School Miss Pratt worked without contact with the arts of New York's lower west side.

Later I came to know many artists and writers and to be eternally in their debt, for they were my first applicants, the first parents who voluntarily brought their children to my school. Creative people, doing battle in their own lives against the set ways of the past, they were quick to recognize and value an approach to children which would cherish the child's innate creativeness instead of stifling it. Militant fighters for their own individuality, many of whom had sacrificed home and security to follow the call of their own talents in freedom, they had a ready sympathy for the precious individuality of the child. And they were not afraid of anything new merely because it was new.20

By the end of World War I the Play School was established in that same Mac-Dougall Alley which housed the Liberal Club, mecca of the truly avant garde in American art, music, letters, and "progressive" politics. From among them, William Zorach, not yet famous in American art, came to the Play School as an instructor. Miss Pratt remembered him well as a teacher at home with the educational philosophy of the school.

William Zorach was a struggling young artist when he became our first art teacher, and I liked his work with the children especially because he refused to teach. Encouragement and inspiration were what the children needed, as he was quick to see, and these he supplied. Through the age levels the art work began to take form. Clay modeling passed the mud-pie stage and became an effort at interpretation; some children reached an astonishing degree of competence at expressing their ideas of shape

¹⁸ Pratt, I Learn from Children, p. 37-19 Ibid., p. 36.

²⁰ Ibid., pp. 39-40.

and movement. Drawing and painting, we found, also passed the apparently aimless period, in many cases at five years and sometimes as early as four. The drawing became either tactual or pure design, and the children made a sharp distinction between the two. As a child acquired a repertoire of objects which he could reproduce to his own satisfaction, he tended to throw them together in compositions which had meaning as well as form. The teacher's contribution might be to call attention to space which could be filled, or to ask, "Where is the automobile going?" which might produce a house or a garage; or "What does the car pass along the road?" which might result in a tree.21

Acceptance of William Zorach's teaching at the Play School and Miss Pratt's assertions of what education should be was furthered by publicity given "the discovery of children's art." In France and Germany there was a rash of intense interest in the art of "primitives" -uncivilized tribes of Africa or peoples of the South Sea Islands or untrained artists among urban carpenters, clerks, and others who were untutored. In Europe the art of Rousseau, Vivi, Rimbert, and Adolph Dietrich received notice. In America there were Edward Hicks, a preacher-painter, Joseph Pickett, a carpenter, and John Kane, a miner.22

Finally it was discovered, first by the modernists of Germany, that similar qualities and idioms were to be found at home and present in drawings and paintings by children; that we all begin with certain powers of expression, with the command of simple, aesthetically effective means, of which we are deprived by what is called education.²³

This deprivation Miss Pratt would avoid but not at the cost of learning the three R's and other academic skills. What

²¹ *Ibid.*, p. 60.

²³ *Ibid.*, p. 368.

made her school during the twenties memorable was that she seemed to have been successful in keeping in tandem the progressivism of those eager for freedom in which to find creative self-expression and the common sense respect for the need to develop sound judgment and knowledge. While the "Sixes" spent their time in building their block city, the "Sevens" added to this. They were ready.

At seven these children had fairly concluded the oral period of their lives. They knew the meaning of adding, subtracting, and dividing; but they knew these processes with real objects; they had as yet no written symbols for the objects themselves. They had no way of recording facts which they wished to remember. They knew that words were made up of sounds, but they had no visual images of them as expressed in writing. They had reached the point where they felt the need for these tools and most of them were eager to learn their use.²⁴

The concept of "reading readiness" was in the Play School not because Miss Pratt had studied it—"readiness" was not available for study at the time—but because she believed that children would learn reading, writing, and arithmetic just as they learned to make boats that satisfied them as being boats and not crudely shaped blocks. Today the approach would be called "developmental," but in the early twenties it was a concomitant of Caroline Pratt's idea that children found learning natural if it was an outcome of significant activity.

Between 1910 and 1930 experience guided the school practice to increasing sophistication. In the block city, arithmetic came to the fore many times—in computing the cost of materials for wiring the "city," in scoring games, in handling carfare for the excursions into

²² Sheldon Cheney, The Story of Modern Art (New York: The Viking Press, 1941), pp. 370-383.

²⁴ Pratt, I Learn from Children, pp. 88-89.

New York. The same could have been said of the "Nines," whose major "job," as Miss Pratt called the center of interest for the year, was the management of the school store. At this store all paper, notebooks, ink, pens, pencils, and paints used in the school were sold or dispensed. The basic arithmetic operations were not remote to these youngsters, who were to be careful bookkeepers.

The Nines' interest in the materials sold in the store leads them to investigate their source of supply—an investigation which is further stimulated and augmented by trips and individual library and laboratory research. They study the spelling of words used in their own writings, as well as those used in store transactions.²⁵

IV

Miss Pratt had fundamental beliefs but seemed to ride no hobby. It was not a school of Dewey or of Rousseau or of anyone else. Practice was altered as experience and imagination suggested the modification. So careful was this consideration of revision in practice that the school became a laboratory whose research activity was the beginning of the present Bureau of Educational Experiments.

In later years the Bureau commissioned Marjorie Page Schauffler to edit a book describing the origins and developments of the first progressive schools. Schools Grow appeared and in it, of course, was the basic story of the Play School. The initial statement of the book bore the

Country School.

title "The Origin of Experimental Education." In this preface Eduard C. Lindeman, philosopher in the progressive tradition, then director of the New York School for Social Service, set about delineating the ideological features of the progressive movement in education from about 1914 to 1930. Though overlooked, Lindeman's brief statement on experimental (progressive) education is one of the best available. It captures in a single paragraph the total character of progressive education in the 1920's.

In the first place, experimental education represented a negative response to the deadly, stereotyped, ritualistic and doctrinnaire form of education which prevailed everywhere in America where middle-class literature became dominant. In the second place, experimental education contributed positive response to . . . liberalism and expressionism, especially self-expressionism... expressionism was a natural consequence of a culture in which such standards as remained effective were merely those of middle-class conventionality or hypocrisy. Experimental education was, then, a . . . revolt against cultural mediocrity. Naturally its influence was cast on the side of the individual. Like all movements involving the notion of freedom, its purpose was to allow the learner to expand, to discover his latent capacities, to break through the artificial barriers of conformity and formalism, and to reveal fresh, creative possibilities in his relationship to his environment.26

The Play School was the concrete expression of Eduard Lindeman's philosophic depiction.

²⁶ Eduard C. Lindeman, "The Origin of Experimental Education," in *Schools Grow*, Marjorie Page Schauffler, editor (New York: The Bureau of Educational Experiments), p. 1.

Khrushchev's Proposals for Soviet Education

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N September 22, 1958, in a dispatch in the New York Times, Max Frankel reported from Moscow Khrushchev's proposals for the reorganization of Soviet education. Thus the American public, so long informed only about the strengths of the formal educational training prevalent in Russia since 1936, was at last made aware of the weaknesses and problems which the exclusive reliance on such methods has caused the Soviet authorities.

In the first phase of attempting to grapple with these difficulties, Soviet leaders tried to counterbalance the growing contempt for manual work by a program of "politechnization" of education. Between 1955 and 1958 this program meant some curtailment of hours devoted to formal subjects and sending children to workshops for a few hours a week to acquire practical know-how.¹ But these

For details of the politechnization program see R. V. Rapacz, "An Analysis of the New Soviet Program for Politechnization" in the forthcoming volume of essays on Soviet education edited by G. Z. F. Bereday and Jaan Pennar (to be published early in 1959). Of interest also are the appropriate passages in Khrushchev's speech to the 20th Congress of the Communist Party. See N. S. Khrushchev, Report of the Central Committee of the Communist Party of the Soviet Union to the 20th Party Congress (Moscow: Foreign Languages Publishing House, 1956), pp. 96-102.

efforts seem to have failed to induce a spontaneous swing of graduates directly to production. The expanding availability of secondary education has instead intensified the pressure for higher, white-collar type of education.

The present Khrushchev proposals are the high point of a second phase brought about by the failure of the politechnization program to furnish the desired cure. Khrushchev's report is neither the beginning nor the end of that phase, but merely its most current expression. The present movement for reform began with Khrushchev's earlier speech, delivered before the 13th Congress of the Young Communist League on April 18, 1958. As a result the Academy of Pedagogical Sciences of the RSFSR was set to devise an eleven-year senior high school program that would combine three days of work in a factory with three days of study at school.2 These proposals, implemented this year in fifty experimental schools, have also apparently failed to provide a satisfactory solution. On May 17, according to a report in Uchitelskaya Ga-

² See G. Z. F. Bereday, "A Comparative Look, at English, French, and Soviet Education," Current History, 35:165-71, September, 1958; and W. K. Medlin "Soviet Pedagogical Academy and the New School Plans," Comparative Education Review, V. 2, No. 2:12-14 October, 1958.

zeta of the following day, N. Goncharov, the Vice President of the Academy, announced for the first time the plan for a universal eight-year school to be followed by two years of work experience, thus signaling the end of a movement for universal ten-year education begun in 1950. In June, Vestnik Vysshei Shkoly carried an article by V. P. Yelyutin, the All-Union Minister of Higher Education, offering evening courses and other provisions to implement Khrushchev's suggestions in higher education. On September 10, Komsomolskaya Pravda featured an article by G. I. Zelenko, chief of the All-Union Labor Reserve Boards, suggesting a detailed plan of reforms in secondary education, supported by a clarifying diagram. The report of the latest Khrushchev memorandum is the final proposal of a series in this area.

Between the two Khrushchev statements lies a period of renewed thinking, speculation, experimentation, and maneuvering for position by the great competing bureaucratic agencies concerned with education. The nature of this process prevents the acceptance of Khrushchev's views as the last word on the subject. Ahead in Soviet education is another period of adjustment and discussion. There is almost certainly going to be opposition. And at least some of the current need for practical orientation in cur-

riculum may disappear with the advances of industrialization and the accompanying spread of occupations that are whitecollar in character.

It is not the purpose of the present report to analyze the complex reasons that have forced Soviet education once again (as in the twenties) to break from its traditional moorings. Nor is it fruitful at this point to try to predict the effects of a policy which attemps to cure the dislike of manual labor by driving youth from the schools into factories. But there are real lessons to be learned in embattled American education from the verbatim report of Khrushchev's own appraisal of the difficulties that plague a formalistic educational system. What follows is a substantially abridged text of the two Khrushchev statements, reproduced from available translations but checked by the authors for accuracy against the original text in Russian as published in Pravda and Izvestia.3

⁸ We used *Pravda*, April 19, pp. 1-3; and *Izvestia*, September 21, pp. 2-3. For the translated text of Khrushchev's April 18 speech, we went to *Current Digest of Soviet Press*. Vol. X, No. 17, June 4, 1958, pp. 17-19, and 35. For Khrushchev's October memorandum, we used the translation by FBIS, appended to Albert Boiter's "Soviet Education and Khrushchev's Reform Proposals," Central Research Dept., Radio Liberation, Munich, Germany, September 1958 (Mimeographed). We gratefully acknowledge the permission of all concerned to draw upon these sources.

Khrushchev's April Address

outstripped all others in the level of training of specialists and that the United States is now setting itself the task of catching up to the Soviet Union.

You realize what this means! The United States, whose ruling circles used to gloat, claiming the lead, is now declar-

ing that it must catch up to the Soviet Union in the training of specialists. This is the kind of achievement of which we cannot help being proud, comrades!

Nevertheless, we cannot rest on our laurels. There are substantial shortcomings in the work of our schools and higher educational institutions. Our ten-

year school prepares young people solely for admission to higher educational institutions. Practice proved long ago that this concept of the secondary school is wrong.

Look at the results yourselves. The country's higher educational institutions can admit approximately 450,000 a year, about half of these to full-time divisions. The majority of secondary school graduates who fail to pass the entrance examinations for higher educational institutions prove unprepared for practical life. Last year alone at least 700,000 secondary school graduates failed to enter the higher and technical schools, while in the years 1953-1956, 2,200,000 of the secondary school graduates failed to enter higher and technical schools.

Since the secondary school curriculum is divorced from life, these young men and women are ignorant of production. Hence difficulties arise as to how best to employ these young people, full of vitality. The result is that a good number of the young people and their parents are dissatisfied with the situation.

Some young men and women, moreover, after graduating from secondary
school, go to work in factories, plants
and collective and state farms unwillingly; they look upon this as though it
were an insult to them. This haughty,
contemptuous, incorrect attitude toward
manual labor is also manifested in some
families. If a child is doing badly in
school, some parents will tell him, "If
you don't do well in school you won't
be able to enter a higher educational institution and will end up at a factory as
an everyday laborer."

Certain people turn physical labor into a kind of bogy for children. I shall not even talk about the fact that such reasoning is insulting to the toilers of socialist society. I think the time has come for a decisive reorganization in the system of school upbringing of the young generation. After all, we cannot tolerate such shortcomings in our schools as weak cultivation of respect for physical labor.

The most important thing in this matter is to set forth a precept and to have this precept be sacred to all members of our society. All children entering school must prepare themselves for useful labor, for participation in building communist society.

All work, whether in a factory or on a collective farm, whether in an industrial enterprise, on a state farm or in an office—honest work, useful to society—is sacred and is a need of every person who lives in society and enjoys its blessings....

Evidently it is necessary to improve our existing system of higher education also, to bring it closer to production and to establish genuine ties between the two. The higher educational institutions should admit a greater number of young people who have already had some experience and a record of practical work. Reorganization of the secondary schools will help us to meet this problem correctly. The higher educational institutions should admit those who display superior ability and the desire to continue their schooling. Here one should take into account not only the desire of the candidate for admission but also the appraisal of his activities by public organizations (trade union, Young Communist League), so that selection depends not only on the applicant's preparation but also on his proclivities and on the assurance that the individual will justify the expenditures upon him and may prove genuinely useful to the directors and organizers of industry....

The existing system of admission to

higher educational institutions also gives rise to complaints. In some cases the higher educational institution accepts not the candidate who is well qualified but the one with an influential papa or mama who can help in getting son or daughter into the higher educational institution.

Such a situation contradicts the very essence of our socialist system, since often it is not the most deserving who gain admission but those who have an inside track to the people in charge of determining who is to be accepted at the higher educational institutions and who is not. This is a shameful phenomenon. We Bolsheviks categorically oppose this state of affairs. And the people know that if the Bolsheviks see a defect and concentrate attention on it, the defect will be eliminated.

In reorganizing the work of the secondary schools it might be desirable to consider using such a time-proven form as the factory vocational schools. Up to a certain grade pupils could attend a secondary school, then enter the factory vocational school to continue their education and acquire practical skills and the trade that every person needs if he is to be not only educated in general subjects, but also thoroughly familiar with life and production, know how to hold a shaft.

This system of education and upbringing will be more consistent with the democratic principles of Soviet society. This way it will no longer be possible to say that Vanya, for instance, does not have to go into industry, while Kolya here has no other choice. When some people believe that only second-raters, as it were, should go into industry, this spirit of socialist society.

Every young man and woman, no

matter what position the parents occupy, should prepare for useful labor under conditions equal for all. Sonny and daughter must realize that papa is papa, but that they have to win the respect of others on their own and not live off their parents' records of achievement. It should be remembered that the father and mother enjoy prestige and respect for definite achievements and that the son or daughter may not win respect if they do not behave properly. . . .

Agricultural specialists should be trained in institutes attached to large state farms. These institutes should have school buildings, laboratories and farms for field work. Or, at the least, the agricultural higher educational institutions should have big training farms. The students themselves should care for the animals, maintain the machinery, know how to operate this machinery, and themselves plant, grow and reap the harvest. And in general, comrades, the agricultural higher educational institutions should be moved out of the major cities and relocated in rural areas.

In rural areas, on the collective and state farms, and at the experimental research stations there are wonderful young people who have a secondary education and a familiarity with collective-farm and state-farm work. Yet we have students, even at the Timiryazev Academy, who cannot tell the difference between young hemp and nettles unless they are stung by the nettles.

Some of our agricultural higher educational institutions have training farms but there the animals which the students are supposed to be studying are cared for by special help. What kind of lordly arrangement is this? With this kind of arrangement a student going straight to the farm will be afraid when a cow shakes her head. I hope the students of

certain agricultural higher educational institutions situated in Moscow and other major cities will forgive me if I say things unpleasant to them. But I must say that some of them came to these higher educational institutions not because they felt a calling to work in agriculture, but because no other higher educational institution would accept them; and so we have a situation resembling the old days when parents did not want to marry off their daughter into a different village: "Let her marry a good-fornothing, just so long as he's in her own village." Some people follow a similar "principle" in choosing an educational institution. When someone like that has finished his schooling you can't smoke him out of the city, no matter what kind of gas you use. There is no kind of work he won't be willing to do if he can only stay in Moscow, or Voronezh, or Kiev....

Comrades! The Communist Party has

put forward a vast program of communist construction. We must overtake the United States of America, the most highly developed capitalist country in the world, in per capita output. This is an enormous task, and lies in large part on the shoulders of our youth. Young people love to engage in competition, and the Young Communist League must become a real chorus leader of socialist competition. But, figuratively speaking, the chorus leaders must be sure to get the right pitch from the tuning fork.

You know very well that here and there on a collective farm you come across a flowery orator who is not averse to making a big noise and instituting all sorts of challenge banners and prizes. But when the time for everyday work comes around again he does not practice what he preached. You must judge not by who talks loudest but by what is accomplished. . . .

Khrushchev's October Memorandum

At present our system of education in secondary and higher school causes much talk. A great number of critical remarks are made on this subject, which in fact reflect the true state of affairs. In the course of conversations I have had with secretaries of the Central Committee of Communist Parties of Union Republics, secretaries of kraikoms and obkoms of the Party, with other comrades who consider the problems of peoples' education or have to do with them directly, and finally in the course of my frequent talks with citizens, a serious dissatisfaction was felt as to the present state of affairs in the secondary and higher schools. The education of the growing generation, which is called to erect the great edifice of Communist society, is a thing of the

greatest importance. The role of education is specially great in our times when a successful development of national economy in the country is impossible without the widest possible use of the latest achievements of science and the latest technology. . . .

There is no doubt that in the course of the forty years of Soviet system the secondary and higher education in the Soviet Union has achieved considerable success. While in prerevolutionary Russia in 1914 only 9.6 million people attended primary and secondary schools, in the past school year of 1957-1958 the number of children attending our general education schools was 28.7 million, and counting the schools for adults, 30.6 million people. During that time the

number of pupils attending senior forms of secondary schools grew by nearly

forty times....

Yet we cannot be satisfied with the state of affairs and with the system of higher and secondary education itself. There are great shortcomings in the work of our schools and higher educational institutions, which must not be tolerated any longer.

The main and fundamental fault of our secondary and higher schools lies in the fact of their being divorced from life. For that shortcoming, workers of people's education and higher schools have often been subjected to criticism, but the situation is practically un-

changed.

Our general education school suffers because we have taken a great deal from the prerevolutionary secondary school, which aimed at giving its pupils a certain amount of abstract knowledge sufficient for a matriculation paper. At that time the state and the school were not interested in the further destiny of pupils leaving the schools.

What is the aim of a secondary school preparing its pupils for matriculation? It is to give them a certain course of academic knowledge unconnected with pro-

ductive work....

Life has shown long ago that such an idea about the tasks of secondary schools is incorrect. Even in former days a considerable proportion of boys and girls did not go to higher educational establishments on completion of their secondary studies. In recent years, owing to the growing number of ten-year school graduates, a smaller proportion of boys and girls are enrolled in higher educational establishments, while the majority of them, on completing their studies in a secondary school and receiving their certificate, prove to be unprepared for life and do not know where to go from there ...

One can hardly maintain that this situation is right and many comrades with whom I had occasion to talk have expressed doubts about the correctness of the system of organization of universal ten-year schooling existing in our country. Apparently one should, while educating and training people in schools, even in the lowest grades, prepare them psychologically for their future participation in socially useful activities, in work, in creating values necessary for the development of the socialist state.

There still exists in our country a substantial difference between physical and mental work, while we have still inherited from old times a situation in which preference seems to be given to that part of youth who must unquestionably enter higher educational establishments, instead of going to factories and collective farms. On the other hand, the remainder are those who have not made good and have not shown any abilities. It is they who should go into production. This view is fundamentally wrong and runs counter to our ideas and aspirations. Boys and girls completing their secondary school studies think as a rule that the only acceptable path in life for them is to continue their studies in a higher educational establishment, or, at any rate, in a secondary special educational establishment. Part of the persons who have completed ten-year schooling reluctantly go to work in factories, collective and state farms, and some of them even regard this as an insult.

This lordly, supercilious, incorrect attitude to physical labor is also being shown in the family circle. If a boy or a girl is not good at his or her studies, the parents and relatives hold out the bogy that if he does not study well, does not get a gold or silver medal, he or she will be unable to enter a higher educational establishment and will be an ordinary worker in a factory. Physical work is, therefore, becoming some kind of scarecrow for children. . . .

One should say that the practice existing hitherto of creating privileged conditions for entering higher educational establishments for persons graduating from secondary school with gold or silver medals had been complicating the situation still more. The fact was that teachers used to be influenced by some parents who wished their children to get medals.

There are also many mistakes in the practice itself of selection of young people and their admission to higher educational institutions. Although there are competitive entrance examinations for those entering higher educational institutions, it must be admitted that often it is not enough to pass the exam well in order to get into a university. Here too the great influence of parents is felt. That is why one can often hear young people trying to enter universities say that after they pass their competitive examinations, their parents will have to pass their competition, which will often decide everything. That creates inequality of opportunity to enter higher and secondary specialized schools.

How can all these shortcomings be eliminated from our schools?

It is essential to carry out a fundamental reorganization in the system of school education. It is most important that a slogan be given, and that slogan must become sacred for all children entering schools. That slogan is that all children must be prepared for useful work and take part in the building of the Communist society: and all work—be it at factory, collective farm, industrial en-

terprise, state farm, RTS, MTS, or office—all honest work useful for society is sacred labor and essential for every person who lives and enjoys the benefits of society. . . .

What practical measures would it be useful to carry out in that direction?

In my opinion, after they have finished seven or eight years at school, all school children without exception should take part in socially useful labor at enterprises, collective farms, and other places of work. . . .

For this reason it seems appropriate to divide secondary education into two stages. The first stage should obviously comprise the seven or eight-year school with compulsory education for all. Public education workers and many parents assert that the eight-year schooling period will make it possible better to solve the task of the necessary general educational and polytechnical training of schoolchildren. This seems correct, but it is more expedient that every Union Republic should solve these questions independently, taking into consideration its own conditions.

It will also be necessary to give serious thought to the syllabus and to the organization of courses in such schools. In the eight-year school, in the first stage of secondary education, main attention must be paid to the study of the principles of sciences, to polytechnical training and practical work, to the development of Communist morality, to the physical training of children and to the development of good artistic taste among them. At the same time any strain which might harmfully affect the schoolchildren's health should be avoided.

Also, the differences in work done by women should not be forgotten. In our country men and women receive equal pay for work that is equal both in quantity

and quality. Nevertheless, due to specific conditions of life, the woman faces many other duties, and quite inevitable ones at that—care of children, housework, and some cooking. In future public catering will be developed on a still larger scale, but it is clear that in public catering as well the work of women will be predominant. Therefore it is necessary to train girls in cooking, cutting and sewing and other womanly skills during their schooling period. All this must be envisaged in the school programs.

It is necessary to make substantial improvements in the material base of the school, finally to abolish multi-shift courses, and to supply schools with contemporary educational equipment.

The second stage of secondary education may proceed along several lines. One of them for instance, can be as follows: in the two or three years after the seven or eight-year schooling, schools shall lay the main stress on special vocational training for schoolchildren. In towns, workers centers and settlements, the children, after receiving seven or eight-year education, may, perhaps, have to attend factory schools. They will continue their education, but it must be closely linked with vocational training and help them acquire trade skills and Working habits, not only an abstract knowledge of production but also practical experience.

In the countryside, the schoolchildren, after a seven or eight-year schooltheoretical knowledge in agronomy, zootechnology and other branches of agriculture, or undergo a two to three-year the village youth as well can learn parter leaving school will have acquired proper education and trade and

production experience, and will start their lives as prepared people. . . .

As a second way of providing complete secondary education, it may be most advisable to educate boys and girls without interrupting their productive work. We should, apparently, have for production workers evening shift schools for working youth. All boys and girls who have gone to a factory, should they wish to do so, may be educated at such a school. We should probably organize a well-thought out system of correspondence courses in which the task of training the pupils should be on a very high level, with widely published lectures, requisite text books and systematic consultations for those who wish to have them.

It is essential to avoid a situation in which evening courses set themselves the object merely of preparing for entry to higher educational establishments. After all, a considerably larger number of youth will be studying in these schools than is necessary for filling the higher educational establishments. Therefore, possibilities must be created in these schools for youth to receive not only complete general secondary education but also for perfecting and making more profound their vocational training, so that better qualified and educated men and women workers, collective farmers and other workers can be trained, possessing a completed secondary education as well as a specialized education.

We will, thus, still preserve as hitherto the facilities for everyone receiving secondary education of the standard of the present ten-year schools, not through the schools as they are now, which are divorced from life, but through an evening or correspondence educational network, which we will have to develop and perfect by every means. . . .

Thus, every boy or girl may, if he or she wishes, receive a complete secondary education in evening educational establishments while working at factories and plants and participating in work, not necessarily physical work—possibly in an office—but living by socially useful work. Such a system of education will help people not to get divorced from life, so that our boys and girls will enter life as well-prepared individuals, full-value workers of Communist society, directly participating by their own toil in the creation of the material goods necessary for this society. . . .

I repeat that there must be no exceptions in this matter, whatever the position of the parents in society and the

posts which they may hold.

A long time before the proletarian revolution Lenin pointed out that a correct organization of youth training under socialism is only possible by joining education with the productive work of the young generation. In order to join universal productive work with universal education, wrote Lenin, it is apparently essential to impose upon everyone the duty of participating in productive work....

I would like to stress once again that the proposals stated in my memorandum for the reform in the system of school education certainly do not aim at reducing the scope of secondary education and replacing it with seven- or eight-year education. The intensive development of the network of evening schools and correspondence courses will enable everybody who wishes to do so to get complete secondary and then higher education. We must not forget the fact that at present, despite the compulsory sevenyear education, a considerable number of young people not only do not get full secondary education, but do not even

finish the seven-year education. According to the figures of the Central Statistical Board of the USSR, in recent years only about 80 per cent of the children who attend schools have finished a seven-year education, even taking into consideration those who remain two years in the same form. That means that we are still far from having realized the principle of compulsory seven-year education.

I believe that the above proposals on the reform in the system of people's education will help to carry out the principle of compulsory seven- or eight-year education. As to the introduction of compulsory complete secondary general education, in the form in which such education has been practised so far, judging by all facts, it would not be useful at present. . . .

The question arises whether the proposed new system of people's education should be adopted as a whole, or whether it would be useful partly to preserve the existing secondary school, introducing

Provisions should be made in the new system of people's education for specially gifted children, who at an early age clearly show abilities, for instance in mathematics, music, or visual arts. As an exception, appropriate secondary schools should exist for them, in which they would get secondary education essential for further study in the appropriate higher schools. This is essential so that our state may correctly develop and make use of the gifts existing among the people.

If it is recognized as essential to reorganize schools—and life itself demands this with insistence—this work must be carried out in such a way that there is no break in the training of the contingents essential for the complement of higher

educational institutions. . . .

Regarding the secondary school, it appears useful to make a thorough study of the system of higher education. Presently many young people who finish higher schools have little knowledge of practical work, and are insufficiently prepared for work in production. . . .

professions when they finish school and immediately enter higher schools. In many, and possibly in most cases, this choice is fortuitous. It often happens, therefore, that when a boy or a girl cannot enter the higher school which they choose, they are prepared to apply to any other higher school, often completely different, as long as they can get higher education of some sort.

There are also many cases when young specialists who have just finished their higher educational establishment are not in the least attracted to the profession in which they have been trained. They either enter another higher school, or take a job which has nothing to do with their training. That is primarily due to the fact that at present young people finishing school have no experience of life at all. And the training of specialists at universities in a whole number of subjects is incorrect.

Let us consider the branches of agriculture. In many capitalist countries, students of agricultural universities must work in agriculture during the period of their university course. But we often give incorrect training to our students. Take, for instance, the Agricultural Academy named after Timiryazev. They study not in the fields, but mainly at the small experimental gardens. They study the cow and other farm animals not at farms, as happens in real life, but mainly from plaster models. On an average there is more than one assistant per student to help him. And that is called a So-

viet higher school. I think this is wrong.

That is why I often hear—and sometimes I even have to speak in defense of young specialists when I hear collective farmers say: "We do not want any young specialists. Why do you keep sending young people to us?" I heard such talk at many collective farm meetings as soon as specialists were mentioned. Why is that so? Because the majority of them are inexperienced. A girl or a boy arrives at a farm and begins to wander around. They do not know how to help the chairman of the collective farm to improve his economy. And so it happens that an under-educated practical worker, a chairman of a collective farm or a brigadier, is more valuable in farm economy than this new person who has a good theoretical knowledge but does not know how to apply theory in practice. But had this young specialist come out of his higher school three or four years later but with personal experience in all production processes at the farm, he would have been far more useful. Then there would have been a different attitude toward the young specialists coming out of our higher schools.

One can reply that some practical work is done by our university students even now. Yes, this is true, but it is extremely badly organized. Practical work must be done more thoroughly, not as it is done now. At present, students who are supposed to do their "practical work" do little more than hang around the works. One man works, while ten or fifteen watch him as if afraid to approach the machine tool themselves. And the work administration does not trust students, because they are not experienced and if a machine tool is placed at their disposal its production capacity is wasted. Such students doing practical work are a burden to the enterprise. . . .

Finally we cannot overlook the fact that we still have few children of workers and collective farmers attending universities. In Moscow higher educational establishments, for instance, only 30 to 40 per cent of the students are children of workers and collective farmers. The other students are children of employees, or intelligentsia. Of course this is an obviously abnormal situation. I hardly need mention the fact that there are only a few isolated cases in which workers and collective farmers themselves are undergoing university training without interrupting their work.

The system of higher education must be reorganized. It must be brought closer to productive work and actually linked to it. The higher educational institutions should admit young people with some experience of life and of practical work. The reform of the secondary school will help to solve this problem correctly. Those must be admitted to higher schools who reveal the greatest ability and wish to continue their studies. Not only the wishes of those who enter the universities must be taken into consideration, but also the reports on the candidate's work by social organizations, the trade union and the Komsomol. In this way the solution will be made according to the standard of training, the inclinations, and the certitude that the person will justify the expense involved in his or her training. . . .

In the development of our higher schools, and primarily the technical schools, we should advance mainly along the line of evening and correspondence courses. It seems expedient that the studies in the first two or three years in higher educational establishments should not interrupt production. This will provide the possibility to select those out of that great number of youth who

would like to continue their studies and show that theirs was not a short-lived zest, but that they truly have patience, industry and a thirst for learning. Only after this, beginning with the third year, will it be possible to grant the privilege of leaving work for three days a week. But in the last two years of study at higher educational establishments it may be recognized as expedient to free students completely from their productive work, except for the necessary period of production practice. . . .

I consider that one should think over the resumption of factory universities. Results obtained from them in the past were not bad. There are quite a number of engineers working in the country's national economy who obtained their knowledge and specialist diplomas in this way. One must say here that in their overwhelming majority they are very good engineers and knowledgeable socialists in their field. . . .

In the work of our higher educational schools there are many other shortcomings. Students are excessively over-burdened with obligatory studies and have little time for independent work. The academic staff, among whom there are many highly qualified specialists, take little part in scientific work. A considerable improvement in the study of social sciences and in the organization of the ideological and educational work is required. The reorganization of the system of higher education must contribute to the liquidation of these shortcomings as well. . . .

One thing must be emphasized with utmost clarity: life urgently dictates the improvement of the entire public education task in the country.

These in Khrushchev's words are the problems of Soviet education. The

breadth of the adjustments required supplies further testimony to the axiom that human minds cannot be dealt with by central planners as if they were a physical commodity. The weaknesses and miscalculations in the previous Soviet educational scheme seem to be indicated by the vast nature of the now necessary revisions. A regard for physical labor cannot easily supplant the drive for white-collar positions after years of traditional education have shaped the values that

led to this drive. These are still present and will persist, despite the blocking of access to the educational means of achieving them. There will certainly be opposition to changes now proposed as long as the attitudes inculcated by traditional education persist. Attitudes cannot be changed by an abrupt central mandate, and the Soviet planners have furnished proof repeatedly that they have not yet mastered the science of Orwellian doublethink.

Recent Research on the Talented*

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DECENT concern with the education of superior students has resulted in a sizable crop of studies. To report them all, even briefly, would be a task beyond the scope of this discussion. No attempt will be made here to present a systematic, comprehensive review of current literature in the field. Instead, the report will compare some recent findings with those from past research in the same areas; raise some questions which remain unanswered-and examine the extent to which current projects are seeking solutions; and explore some areas in which schools may most profitably expend their research efforts.

The studies reported in the literature are concerned with a variety of populations. Some deal with the top 1 or 2 per cent of the population in terms of IQ, others report on special award winners, still others are concerned with various talents, not only the academic. As the practitioner reads the reports, he will have to select for possible application those findings which are pertinent to

* A speech delivered at the Conference on Educating the Gifted held at Rutgers University.

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the specific situation with which he is concerned.

In this report the words gifted, superior, able, bright, and academically talented will be used interchangeably, as they are in the literature, and will serve here more for stylistic variety than for semantic intent.

SOCIAL AND PERSONAL CHARACTERISTICS

What is the superior youngster like? What are his personality traits, interests, and aptitudes? What are his social backgrounds, his school behaviors? Such questions have concerned students in this area since Terman began his monumental studies in the 1920's. However, one question continuously arises: Are the personal and social characteristics attributed to gifted youngsters of the past descriptive of the gifted youngsters of today?

Current research answers this question partly in the affirmative. (1, 13, 21, 35)† Compared to average children, both at the elementary and at the secondary school level, gifted youngsters secure higher grades (13), have more positive attitudes toward school (1), and excel in their ability to read (1, 35). They participate in more extracurricular ac-

†Figures in parentheses throughout this article refer to the bibliography on pages 162-63.

tivities (13) and have more hobbies and out-of-school interests (1). Like their predecessors of the twenties and thirties, they are more concerned than average children with abstract ideas, such as religion and morality, and are especially troubled by problems of world peace (35).

Today, as in the past, research points out repeatedly their adequate social and personal adjustment. They are successful in sports (1), better satisfied with their peer relations than are average youngsters (35), more confident, and aware of their above-average ability

Talented children today are much like their predecessors. But there are some differences.

An interesting departure from previous findings is reported by Drews (13), who studied 150 gifted high school students selected through initial city-wide intelligence testing and then through individual Binets. Unlike previous studies, which located a disproportionately large percentage of gifted youngsters in the high socioeconomic strata of society, her study found that these children come in normal proportion from all strata of society. In fact, 75 per cent of her group came from homes of skilled and unskilled workers and low white-collar Workers. In addition, she found that the number of Negro students in her group of gifted was proportionate to their incidence in the general population of the city studied—Lansing, Michigan.

These findings are not supported by the report of the National Merit Scholarship Corporation (25), which agrees that scholars come from hovels and mansions alike, but which finds that at least half of them come from homes in the upper business or professional group.

It would be possible to conjecture at

length about these contradictory findings. Have the Lansing Public Schools done an unusually fine job of developing latent ability? (After all, intelligence tests are measures of achievement too.) Or are the differences in selection procedures at the core of the discrepancy? Could we, perhaps, hypothesize that whereas intellectual ability as measured by intelligence tests is distributed proportionately throughout the population, the kind of high-level achievement which results in winning a Merit Scholarship is more often found in the higher socioeconomic groups?

A second challenging area of difference between past and present findings relates to similarities between average and gifted boys and girls. For example, several studies have found that although gifted youngsters read better, and more, especially at the elementary and junior high school level, their reading tastes are "limited, trite or poor" (1). Unlike Terman's subjects they do not voluntarily go beyond the books read by their average age mates.

Nor does their intellectual behavior necessarily reflect the expected outstandingness in the ability to conceptualize, see subtle relationships, or probe ideas in depth. In a study of gifted junior high school students, Kirshner (21) found that these youngsters were verbally very articulate, in fact glib, when left to their own devices, but their thinking was superficial at best. They liked to read, but would not voluntarily tackle more difficult books than those read by average students. His experimentation led him to conclude that the expected abilities are there, in latent form, and that they emerge when the school sets learning tasks which require gifted students to perform in accordance with their intellectual capacities.

Is it possible that some kinds of intellectual talents atrophy with disuse? Or are these children following the path of least resistance—making just enough intellectual effort to get by? Or are some of them afraid to appear too brainy? In this latter connection Strang (35) found that the voluntary reading of gifted students decreased from junior to senior high school and suggests that this decrease may be due in part to fear of being considered bookworms by their friends.

Whatever the explanation, the school faces the responsibility of assuring the high-level intellectual performance of which the superior students are capable. How this may best be done is a wide open question to which schools should address their best efforts.

One additional insight into the characteristics of the gifted emerges from Drews' (13) study, not as a departure from previous findings, but rather as a provocative notion which merits further exploration. She found that over half of her gifted students were firstborn (or only) children instead of the about one-third which would be expected by chance. Terman (37) reported similar findings, as did Roe (30) in her study of eminent American scientists. Do these findings suggest that there is some quality in the relationships between parents and their first-born which is particularly conducive to the development of intellectual ability? Or are we dealing with a socio-biological phenomenon, related perhaps to the younger age of parents when the first child is born? It would be well to understand this phenomenon more fully in order to know whether the family and the school can somehow compensate for lacks related to not being first-born children.

IDENTIFICATION

Information on the characteristics of the intellectually able child is fairly adequate, but our ability to identify him still lacks precision. No available measuring instrument is a sure-fire predictor of academic success. For although we can assess intellectual ability fairly adequately by means of intelligence, aptitude, and achievement tests, we are as yet unable to measure the nonintellective factors that may be crucial to predicting academic success. A series of studies of nonintellective factors, sponsored by the Social Science Research Council (33), suggests that socioeconomic status, ethnic or religious group membership, family patterns and childrearing practices as well as self-concept may be important components of intellectual achievement.

In general, the intelligence test, preferably an individual one, seems to be the best single predictor of success at the elementary school level, at which stage, it is believed, no marked differentiation of abilities has developed. At the high school level, tests of educational development appear to be most effective in discovering both general and specific strengths and weaknesses. For the prediction of college success, the psychological examination is giving way to measures more closely related to achievement, which have been found to predict more accurately.

In view of the generally accepted belief that there is little differentiation of intellectual abilities in young children (2), the recently initiated study at Hunter College (12) should prove illuminating. It hypothesizes that as early as first grade, children can be identified who are outstanding in one or two but not necessarily in all such special abilities

as word meaning, numerical facility, spatial orientation, logical reasoning, and social leadership. It further hypothesizes that school programs peculiarly suited to educating children with these diverse strengths within a single class can be developed.

Certainly more systematic research on identification is needed. We must recognize the multifaceted nature of giftedness or talent and explore the best means of assessing not only each facet, but also the interaction of the various components. It is easy to identify the "able and ambitious" student—in fact he almost identifies himself—but it is not easy to locate the potentially able unambitious one. Nor do we know the proportions of ability and ambition necessary to produce high-level achievement.

ADMINISTRATIVE PROVISIONS

Administrative procedures for taking care of exceptionally able students, especially ability grouping and acceleration, have long been a source of concern to teachers and administrators. Both these practices arouse heated arguments, and research findings seem powerless against the vested emotionality of educators and laymen alike.

Ability Grouping. What does recent research tell us about grouping? It generally confirms past research: placing able youngsters into narrow-range ability groups tends to result in somewhat greater achievement and does not foster the development of poor social or personal adjustment. But, the arguments dren to learn to accept one another, and doesn't this imply that we must together? Desirous of retaining the grouping while fostering broad social re-

lationships, several schools have instituted partial grouping. The gifted are in special classes for part of the day, in regular classes for the rest of the day. An evaluation of one such program in a Dade County, Florida, elementary school (10) found that the youngsters so grouped showed better academic achievement than a comparable group in regular classes. An assessment of peer ratings in the ungrouped situation indicated that the gifted group were placed in neither the most-liked nor the least-liked group. The gifted youngsters themselves stated that they felt more at home in the special class than in the regular class.

Further evidence comes from a study by Mann (24), who analyzed the acceptance and rejection patterns of elementary school children in the Colfax School (Pittsburgh, Pennsylvania), where partial grouping has long been standard procedure. He found that in spite of the fact that gifted children had visible social and academic contacts with "typical" children, gifted children chose and rejected other gifted children much more frequently than they chose or rejected typical children. Typical children also seemed to prefer and reject their own. In all instances both the acceptance and the rejection seemed to be stronger within an ability group than across it. Gifted children generally preferred to have other gifted children criticize their work and react to their products. Mann also found the same patterns in the outof-school friendships of the gifted. In general the results of the study indicated that to believe that "because we group children together we have trained them to accept each other for what they are" (24) is by no means supported.

In view of the available evidence we can say with some assurance that grouping able youngsters together is certainly

a useful administrative device, since it enables teachers to work with a narrower range of abilities, to devote more time to the gifted than is possible when there are slow children who need help, and to enrich the curricular offerings. Furthermore, grouping does not produce adverse effects in the personal or social behavior of gifted children.

However, all studies on grouping to date have dealt only with the effect of ability grouping on the superior student. Little attention has been given to what happens to the other children in the school when special classes for the gifted are formed. A broader statement of the issue might be: What are the effects of ability grouping on the intellectual, social, and personal development of all youngsters? In tackling this problem the Horace Mann-Lincoln Institute (36), in cooperation with the New York City Public Schools, involved forty elementary schools in organizing some eighty fifth-grade classes on the basis of specific grouping patterns which were to be maintained intact for two years. Some classes included only youngsters of IQ 130 and above, others included those of highest and next highest ability, some included the total ability spectrum. Some classes had no gifted youngsters in them, others were limited to average-ability students only, some only to the slow. Thus it will be possible to see whether average youngsters fare differently when they are in classes with or without bright youngsters; or whether they fare differently when there are slower youngsters in their classes than when there are none. Similarly, the bright or near-gifted can be studied in various positions along the ability range. The assessment of these students includes before and after measures in all achievement areas: self attitudes, attitudes toward school, interests,

acceptance and rejection of brighter and of less able students, creative writing ability, friendship and leadership ratings, and teacher ratings. The groups are sufficiently matched so that it should be possible to discover the relative effect of various grouping patterns on the total school development of elementary school youngsters of diverse levels of intellectual ability. It is hypothesized that children at all ability levels tend, in general, to fare better when the class range is narrow than when it is broad. Whether this hypothesis is sustained by the findings remains to be seen.

A similar question was raised with reference to secondary school grouping, and an experimental program at the Evanston Township High School, Evanston, Illinois, again in cooperation with the Horace Mann–Lincoln Institute of School Experimentation (36), is studying the relative effects of the presence or absence of outstanding students in English classes on the performance of the

remaining students.

It is hoped that the findings from the studies now in progress will provide schools with the necessary information for making critical value judgment in

the use of ability grouping.

Acceleration. Acceleration is second only to ability grouping in arousing emotional response. There is hardly a person who cannot conjure up at least one example of how accleration ruined a child's life or at least created serious unhappiness, and yet it is hard to find a single research study which shows acceleration to be harmful (31). On the contrary, from the early studies of the 1930's until the recent report by the Fund for the Advancement of Education on its Early Admissions Program (15), acceleration has proved to be a very satisfactory method of challenging able students.

Certainly caution needs to be exercised in selecting candidates for accelerated programs. It would be foolhardy to disregard a child's physical and emotional development in moving him to a grade beyond his years. Where possible it is probably better to move whole groups of youngsters through at an accelerated pace than it is to move a single child (19), but in the small school, where there are few exceptionally able children and curricular adjustments within broadrange classes are difficult to achieve (which, of course, is true not only in small schools), acceleration can provide the necessary challenge and stimulus to the superior child.

To the extent that getting youngsters out of school earlier is per se a worthwhile end, acceleration is certainly both a desirable and a practical method. And there is some evidence to support the contention that gifted youngsters should complete their formal schooling at an earlier age than is now the case. Lehman (22) has shown that for some fields of endeavor, particularly the physical sciences and mathematics, greatest productivity is achieved during the twenties. Such findings tend to stress the importance of freeing the potential producer from the apprenticeship of schooling at a sufficiently early age to make possible maximum freedom for original work and experimentation during the third decade of life.

But available research does not support the contention that acceleration is the best method of providing greater challenge for able students. Studies dealing with acceleration of one kind or another compare their accelerants to youngsters who are carefully matched on ability, but the comparison is inevitably with a group whose curriculum is rarely different from standard fare in

the school. There is no proof that an accelerated group would do better than an equally able group who had had an additional year or two of stimulating advanced work. For example, how would students who take Advanced Standing courses in high school for which they may receive college credit, and thus have time to take a richer program at college, compare with students from the Early Admissions program, who are admitted to college a year or two before graduating from high school? It is possible, of course, that the value of acceleration would vary with the economic state of the country at any given time and also with the financial status of individual students. Where finances are a problem, earlier entry into college may be necessary to ensure college graduation and enable students to do postgraduate work. Perhaps a combination of acceleration and more stimulating curricula is the best solution.

The optimum time for acceleration is not known. Gifted accelerants have been generally successful whether they were early admittees to kindergarten, gradeskippers in the elementary school, members of special progress classes at the junior high school level or early admittees to college. But is one time better than another for acceleration? Are there developmental factors that might suggest that at certain ages there may be more dangers or, at least, more discomfort for the child? More research on this point is needed.

We must conclude that, although we do not have all the answers to this problem, there is certainly nothing in research today that would gainsay Terman's recommendation (38) that acceleration of no less than one year and probably no more than two is a most satisfactory procedure for bright youngsters.

Other Administrative Procedures. Schools are experimenting with administrative arrangements other than grouping and acceleration to provide for superior students. Three kinds of programs are worth noting.

1. A seminar for able rural youth is now in its second year in Lewis County, New York (36). In this very rural county, where schools are small and spread over a large area, twenty-five eleventh and twelfth graders from six high schools are brought together for one afternoon a week. The central theme of the seminar has been "Communication," and students have been exposed to classical and modern literature, music, art, and drama. Evaluation thus far shows that they have grown in self-expression and in critical thinking. As compared to students in past years, an increased number plan to go on to higher education.

Whether such seminars can be successfully developed in other rural areas depends largely upon availability of suitable personnel, either within the local school system or through the cooperation of a neighboring college, industrial plant, or governmental station. The personnel would largely determine the na-

ture of the content.

2. Another plan which is spreading rapidly involves the organization of evening science seminars (17) in which outstanding scientists from the community or from near-by places work with selected students in groups and individually. Such an arrangement should provide young potential scientists with opportunities for original research and experimentation, so often lacking within the school program. A modification of this plan, now beginning in Dade County (11) allows selected students to complete their regular daily program two hours earlier and to spend their afternoons

working in local community laboratories.

3. Everyone recognizes the importance of guidance for the maximum development of superior students. It's sort of like being for God, mother, and country and against sin. But little has been done to discover whether the problems faced by this superior group are sufficiently different from those of average students to warrant special attention or new approaches, or just what these special problems

cial problems are.

An attempt to identify some of these problems and to experiment with group guidance for a section of superior students under a specially trained person is now under way at a Denver, Colorado, high school (36). Follow-up studies will compare the special group with equally able students spread throughout regular guidance sections, and should shed some light on whether grouping gifted youngsters for guidance and organizing the content around their special needs will have important effects on their success in high school, in college, and in adult life.

COURSE CONTENT AND METHODS

No matter how adequately a school may handle the problems of grouping, grade placement, or even guidance, the major question in educating talented youngsters still remains unanswered: How should the actual course content and teaching method be differentiated for these students? The glib answer is, enrich the curriculum. But enrichment, like the weather, is something everybody talks about but few do anything about. We really don't know what enrichment is. Does it mean accelerated coverage of a standard course of study followed by advanced content in a given discipline,

such as completing elementary algebra in the eighth year and thus, in the twelfth year, having time for a course in calculus? Or does it mean digging more deeply or extensively in selected areas, for example, studying original documents of some historical period? Or does it mean increased independent and creative work in some field of individual interest? Perhaps the very word enrichment is a misnomer; perhaps what is needed is not embellishment of existing course content but different content. Despite the plethora of "promising practices" suggested by and for teachers, these questions remain unanswered.

The only subject-matter field in which some experimentation with course content is now in progress is mathematics. In Pittsburgh (27) elementary algebra was successfully completed in the eighth grade by a group of carefully selected students. In the University of Illinois Campus School the newly developed Illinois Math Program (40) is being used experimentally with superior seventh-grade students. These are both examples of enrichment through acceleration. However, in St. Paul, Minnesota (32), the ninth-year course of study was rewritten to include many concepts of modern mathematics and is being tried with one group of able students who will be compared with another such group taking the traditional algebra course.

An experiment in a tenth-year geometry class which involved the inclusion of special mathematics units, not normally taught at any stage of the usual course sequence, is reported by Lessinger and Seagoe (23). They found that the students in this program achieved better in basic geometry content and, in addition, were superior to a comparison group in general mathematical understanding, flexibility of approach, and willingness to propose and defend original solutions.

An experiment in the relative effectiveness of content acceleration and course modification is now under way in two Cheltenham Township junior high schools in Pennsylvania (8). Four matched seventh-grade sections of superior students were organized. Two of them were to follow the standard seventh-year curriculum, but with the addition of special units such as history of numbers, number systems, elementary concepts of measurement and statistics; one section was to move as rapidly as it could through the traditional seventh-, eighth-, and ninth-year mathematic curriculum;* the fourth was a control group. The study will continue through the twelfth grade and the four groups will be periodically evaluated on achievement, and on interest in and attitudes toward mathematics and mathematics-related careers.

MOTIVATION AND ATTITUDES

We have known for many years that a child's IQ, or even his score on aptitude tests, accounts for only a part of what determines his academic achievement or his vocational selection. Teachers have long been familiar with the able unmotivated student, and many a report card has gone home bearing the notation "Should be doing better." This problem was highlighted by Terman (37) in his comparison of the vocationally most and least successful adults among his gifted subjects. He found through checking past records that the two groups began to draw apart in achievement and in personality ratings in their early high school years.

But although the problem of under-

^{*} After seven months this group was about ready to begin ninth-year algebra.

achievement was recognized and school people knew that many able students, even among those who did well in high school, failed to go on to post-high school education, it was not until the publication of the manpower studies that educators and the public alike became aware of the fact that about half of the nation's able youth would not be academically prepared to fill our depleted talent reservoir.

Although financial difficulties explain a part of our talent wastage, which the steadily increasing scholarship aid will go far to remedy, a part of this waste is due to factors other than lack of money. In fact, we find that some gifted children begin to show symptoms of academic underachievement in the junior high school, and some as early as the elementary grades. Who are these underachievers? What are their backgrounds? What are they like and why? What can the school do to help them? These questions have concerned researchers since Conklin's early studies (9). In summarizing the research literature on underachievement through 1957 Beasley (3) reports contradictory findings with reference to the role of personal and social maladjustment in underachievement and concludes that "the fact of adjustment or lack of it . . . has to be understood in its more personal, subtle and pervasive aspects rather than as the particular phenomenon which in itself can account for underachievement."

Studies now in progress or those reported since last year shed some new light on this question. Drews (12), for example, found that the incidence of underachievers was very low in her group of gifted students. She found that most of the boys were planning on college careers, but that wastage was great among the girls, many of whom looked

upon high school as terminal education.

Comparisons of gifted underachievers and high achievers by the research staff of the Portland Public Schools (29) and similar studies by the Horace Mann-Lincoln Institute in cooperation with the Evanston Township High School (36) and with the DeWitt Clinton High School in New York City (36) revealed significant differences between the two groups in their self-concepts, school attitudes, and out-of-school pursuits. Some of the underachievers expressed negative views of those who make high grades, calling them grinds, and suggesting that they do not participate sufficiently in nonacademic activities. The underachiever more often is cynical, feels victimized by adult authority, and perceives his family situation as having poor morale, with strong parental domination. But no differences were found in parental philosophy of child rearing.

The above studies are descriptive in nature, as are most of the earlier studies in this area. The causes of underachievement remain shrouded in mystery. In fact, it is probable that the causes are as diverse as are the underachieving youngsters themselves

As mentioned earlier, some general social factors related to underachievement have been suggested: for example, bright children from low socioeconomic status homes tend to be less motivated toward academic excellence; some ethnic groups present more problems of underachievement than do others—a fact probably related to the traditional attitudes of ethnic groups toward intellectual pursuits. But even when these factors are held constant, great individual differences in achievement persist. A project now under way at Harvard (34), which is studying the individual achievement differences between youngsters of comparable intelligence, comparable neighborhood, and comparable parental educational levels, hopes to discover some generalizable factors in the life experiences of these children which could account for differences in achievement level.

There is some indication that the junior high school is the point at which the problem of underachievement gets a good start. A study of high and low achievers at the Bronx High School of Science (14) discovered that the most telling differentiation between these two groups, who were matched on intelligence, entrance examination score, and other objective factors, was the grades they received in junior high.

With the limited knowledge available today; without any clear understanding of what makes one child underachieve and another child from a similar background achieve up to capacity, what can schools do to help these underachievers? Certainly educational guidance, personal counseling and remedial help are indicated. But are there any kinds of administrative or classroom modifications which might prove helpful? This question was raised at the DeWitt Clinton High School in New York City (36). In cooperation with the Horace Mann-Lincoln Institute a group of high ability, low achieving entering tenth-year students was identified, half of whom were placed together in a home room with a specially selected teacher who was their social studies teacher as well as home room guide. For all other subjects they were distributed throughout the regular sections. A year's study of these students showed that, though they were slow in improving, they did excel the control group in almost all subject areas. However, when the following year they were placed for social studies with a rather

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rigid teacher who demanded high standards of excellence, they made life miserable for the teacher. They were extremely supportive of one another in their negative behavior and tested the limits at every step.

The implications of this study point toward the need for continued careful selection of teacher personnel for such groups. They apparently need teachers who are able to accept their limitations and who are sufficiently flexible to allow them the leeway they need. Whether the high school years are long enough to provide the necessary support at first and gradually free the children from the need for such support is questionable. A look at the individual members of the group was quite revealing. For some of these youngsters the special class opportunity was just what the doctor ordered. A supportive teacher, a friendly atmosphere, a reaffirmation of their own ability provided the impetus for them to move ahead. But some of them had deepseated psychological problems which were not amenable to any kind of superficial group treatment. Certainly, in their case, more intensive personal help is indicated.

A great deal of additional research is needed to discover ways in which the school can help these boys and girls. A prior step to actual administrative planning for them would involve much more careful academic, psychological, and possibly even psychiatric screening. It is probably important to differentiate between the underachieving youngster who will rise to the occasion in the secondary school situation given some help and understanding, and the youngster whose problems are too deep-seated to be amenable to any help at that late date. Extensive research is needed on identification of potential underachievers in the elementary grades and the junior high school grades, in order that they can be helped before they become too well adapted to their own poor work and study patterns and before their anxieties can channel their defenses into underachievement.

The manpower waste occurs not only among students who are identified as potentially able but who, for a variety of reasons, do not fulfill their promise. It is even more marked in underprivileged groups in which the estimated loss of potentially high ability students is probably in the hundreds of thousands each year, since they cannot be adequately identified by the testing procedures in common use (28). The work of the Southern Project, which involved identification of students who would not normally have been considered superior, followed by guidance and scholarship aid, resulted in many more southern Negro students going to non-segregated colleges, where they were generally highly successful.

Along similar lines is the experiment now going on in Junior High School 43 in New York City (26). This school is largely Negro and Puerto Rican, and is located in a culturally deprived neighborhood. Out of this population a group was identified which would not pass muster as gifted by any standards generally applied, but which showed glimmers of potential ability. These students were put into special classes, and teachers and parents were carefully alerted to the intent of the program. Expanded curricular offerings, out-of-school cultural experiences, and special counseling facilities are provided for these children, who will continue to receive special help through the three years of junior high school and in the senior high to which most of them go. The final assessment of

this study will be in terms of the numbers who go on to college and plan professional careers, as compared with a control group.

Does waste or misplacement of talent result not only from cultural deprivation and underachievement but also from the unwillingness of able high-achieving students to pursue science, mathematics, or foreign language study and thus be unprepared for professional work in these essential fields? Drews (12) found that three-fourths of her gifted boys were planning their study for careers in science and engineering. And of 5800 Merit Scholar and Certificate winners (25) 60 per cent planned on similar courses of study and another 25 per cent on liberal arts study. The number headed for business careers was limited to 2 per cent.

The extent to which able students may be deterred from achieving intellectual excellence by a fear of rejection by peers is being investigated by Tannenbaum (36) through an attitude test. He asked students to attribute various personal characteristics to brilliant and average gers and who may or may not be pluggers and who may or may not be athship between the students' responses and their intellectual and socioeconomic status.

CURRENT TRENDS

What does research tell us about current trends in the education of superior children? In the past, surveys indicated that few schools were making special provisions for this group. Where schools did report special efforts, it was usually through "enrichment in the regular classroom." To what extent has the picture changed?

Recent surveys (4, 5, 16, 18, 39, 41) and school reports indicate a growing

awareness on the part of educators of the importance of making special educational provisions for the gifted child. At the secondary school level, especially in large schools, ability grouping through sectioning and honor classes is becoming more widespread (18). Not so at the elementary level. Here classroom enrichment still holds its own. Least is being done in small non-suburban communities. The outstanding programs involve special staff and additional cost (16).

However, a self-assessment survey of 400 Central Secondary Schools in New York State (36) finds schools attributing less importance to grouping and acceleration than to classroom enrichment as means of providing for talented students, but finds that they do not consider their present enrichment procedures as adequate.

Many school systems (41) have published guides for administrators and teachers which discuss identification procedures, administrative arrangements, and curricular suggestions. In some disstricts, individual buildings may be engaged in a special program, in others system-wide efforts are involved (29). Under a grant from The Fund for the Advancement of Education, the Portland Public Schools, in cooperation with Reed College, developed a comprehensive, district-wide plan. Special training for teachers through summer and in-service workshops, the addition of personnel, special classes and seminars at the secondary level, and enrichment units and special interest groups at the elementary level resulted in a unique program which stood up well under careful evaluation.

A new trend is seen in the efforts of State Departments of Education to undertake work in cooperation with public schools, sometimes also involving institutions of higher learning in cooperative

effort (6, 20). Not yet apparent in surveys or in school reports, but a trend nevertheless, is the recent determination to make able students work harder, take more years of solid subjects, spend less time in nonacademic pursuits. This determination is quite marked in the reports of the working groups at the National Education Association Invitational Conference (8). The pros and cons of this trend need thoughtful assessment.

CONCERNS FOR SCHOOLS

The studies cited in this discussion give some idea of the kinds of questions that are being looked into at present. As noted before, some of the concerns have been stimulated not so much by educational re-evaluation as by manpower needs. There is some danger that the immediate demands of the culture for more scientists and mathematicians will lead schools into urging able students into these fields at the expense of other intellectual endeavors. Thoughtful consideration on the part of school people is needed if we are not to sacrifice both special talents and the long-range needs of our culture on the altar of immediate economic and political demands.

The great research need today is in the field of content and method, which will lead to a sound theory of enrichment. We need to know what will stimulate a love of learning among able children; what kinds of assignments will most effectively develop independence of thinking and independence of effort; whether there are some subjects in which acceleration through the present curriculum is the most appropriate kind of teaching, and other subjects in which greater exploration in depth or expanded exploration in breadth may be the answer; something about the interrelationships of various aptitudes and talents. Should all

intellectually able students take the same kinds of courses, such as three years of mathematics, three years of science, and at least three years of a foreign language, in addition to the required English and social studies? Or should the course offering be more carefully differentiated in terms of special aptitudes and interests of students? Should students with high academic aptitude be encouraged to take art or music or drama as a major subject?

All these questions are still open, as are many that relate to guidance and counseling, particularly for the underachiever. Answers to these questions will emerge as schools become involved in research efforts. As schools pay more attention to the available research and act on it, and at the same time become actively involved in the pursuit of research in their own schools, we will go a long way toward improving our educational procedures, not only for the gifted child, or the academically talented child, but for all youngsters in our schools.

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Who Wants to Be a Teacher?*

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Lever since the ghosts and goblins bedeviled the reedy frame of one Ichabod Crane of Sleepy Hollow, the stereotype of the schoolteacher has placed a burden of orthodoxy on American teachers. Embedded in the public mind is the hard image of a Casper Milquetoast with chalk dust on his coat, or, as women became more numerous in the classroom, of a maiden lady, gaunt, brittle, with a stern mouth and precise manners.

As the twentieth century corrupted the genteel respectability of the schoolmarm, she was replaced by Miss Brooks—debt-ridden, desperate, and disgruntled. Victimized by her principal, afraid to be controversial, uninspired and ill-paid, the modern stereotype is pictured struggling for the television-soaked minds of near-delinquents with a strange, almost un-American, devotion to the idea that education is an end in itself.

The production of such a stereotype has been the focus of much animated discussion, but the picture of a woman who sends her heart home each day at 3:15 p.m. still perseveres. Stereotypes

*Much of this discussion is based upon the author's doctoral dissertation, "The Cultural Orientation of Teachers and Some Factors of Teacher Competence," Stanford University Library, 1957. Under a grant from the University of Wisconsin, Professor Thomas is continuing research into the problems of teaching. He is also working on other issues in educational sociology.

seem to reinforce themselves by attracting like people, by drawing into their sphere the image of themselves. In an occupation as old as schoolteaching there is a certain validity in the stereotype of a personality difficult to change, always spawning more of its kind to displace any mutations. Said Harold Laski, "Schoolteaching is the last refuge of the shabby genteel."

For those who see in this unhappy situation the stark contradiction of any high professional expectations for teachers, a sifting of the realities of this problem seems pertinent. In fact, even a cursory glance at the problems of teacher supply, effective teacher education, and the future of education itself brings into sharp focus the paradox of a Miss Dove in a space age school.

The contrast suggested is surely derivative of certain contemporary cultural realities related to education. The institution of the school, which gives teachers their reason for existence, in turn finds its origins in the surrounding things, people, and ideas which are the culture. As a social institution the school has no function or opportunity to affect the society until that society empowers it with resources, financial or otherwise, and appropriate sanctions such as legal status. The school's employees are then agents, or public servants, with all the rights and the many limitations implied in that

status. In such a context and role the teacher almost has to depend upon her environment to define what constitutes her competence, what her characteristics should be, and even what is recommended as her parameters.

as her personality.

Certainly a debate has always raged over the definition of a good teacher.1 Opposing camps issue proclamations, denunciations are prepared for national publication, and school boards suffer perennial confusion. On the sidelines the teachers must wait to be told: are they to be male or female, conformists or reconstructionists, schoolkeepers or instructors? The patent instability of the modern American culture which seeks to answer these questions promotes even further chaotic formulations. Essentially, the needed definitions, the assignments of appropriate competence, are based on value systems in America today which have yet to resolve some basic conflicts. I define good teaching in terms of what I believe philosophically about the function of education in an American democracy. You define teaching competence in terms of your beliefs. Probably we disagree, in part or in total. Yet we are both part of the society which is the prime determiner of what the school and teaching shall be. To me, your view may be the ultimate in absurdities; to you, I may seem to be an uncritical devotee of some special cult. Each of us can say smugly, "Consider the source." Too often we merely cancel one another out, and the result is the absence of either camp's favored beliefs. The mottled actualities of teaching have been imposed from other sources, and the results are clear to anyone conversant with the day-to-day operation of public schools.

TEACHER VALUES

In lieu of values insisted upon by their sponsoring agent, the schools have inevitably accepted the value system of their teachers. By itself this may be either good or bad, depending upon what that value system turns out to be. Thus it is pertinent that an examination of the value system of teachers be made, consistent with the realities of known behavior of teachers as a group.

The source of a teacher's value certainly is in consonance with his enculturation, level of acculturation, and present general status in society. In other words, the kind of value system into which he was induced, his exposure to other views, and his present place in society are defining agents of the teacher's value orientation. Further, sociologists and social psychologists have insisted that a particular occupation so influences its adherent's values and ultimately his behavior, that it produces a definable system or pattern of behavior significantly associated with the particular occupation. Teaching is one occupation which has yielded a behavior system and, according to researchers, something called an occupational type, or occupational personality.2 Most people who are in occupation X have behavior pattern A precisely because occupation X pushes them

² A. B. Hollingshead suggested the behavior system as a fruitful area for research in the American Sociological Review, December 1939, and Frederic Terrien applied the concept in his study of teaching, "The Behavior System and Occupational Type Associated with Teaching," Yale University Library, New Haven, 1950. Unpublished Ph.D. dissertation. See also the work of W. B. Brookover and others in The Journal of Educational Sociology, September 1955.

¹ Eight years ago, S. J. Domas and D. V. Tiedman reported over a thousand titles dealing with definitions of a good teacher, which represented an incredible range of concepts. See Journal of Experimental Education, Vol. XIX, December 1950.

into such a pattern. To a degree, this occupational personality is a stereotype, except that it is more truly descriptive, less emotionally derived, and less sweeping in its application. But it is distinct, and it is influential.

Perhaps it would be more appropriate to introduce the term "occupational label," for in a sense it is "labels" which have been produced by the tremendous increase in occupational specialization. It is clear that as society and its groupings have become more complex, the various occupational specialties have become more obscure to all but their practitioners. The average man finds himself without sufficient knowledge of other occupations, and when called upon to respond in some way to specialties other than his own, he must of necessity respond to labels rather than content. The functions and purposes of other specialties have eluded him. It is probably equally true that his initial aspiration to his own occupation came as a result of response to a label. Without specialized knowledge, he can "see" himself being a doctor, a toolmaker, or a teacher.3 His choice fits his concept of what will be occupational compatibility for him. In other words, the behavior pattern which is represented by the label selects similar people, or similar people select that behavior pattern, in sufficient numbers and with sufficient orthodoxy that the label continues to be illustrative of the occupation.

The suggestion, then, is that the occupational personality associated with teaching prescribes a special set of values and attitudes peculiar to teaching in the sense that as a mirror reflects life but isn't life, teaching recalls life but is actually a

² See Theodore Caplow, Sociology of Work (Minneapolis: University of Minnesota Press, 1954), Chapter 2.

different compound. The reader will no doubt raise the issue of the traditional association of teachers with the middle classes, repudiating any thesis that teachers possess some autonomous value system detached from or contradictory to the standard American value pattern. But one need not be dismayed by the observation that in an essentially unreal world of labels, stereotypes, tentative values, vacillating metaphysics, and the like teachers may only appear to be rank conformists to the mainstream of the middle-class culture.

TEACHER CHARACTERISTICS

There is much evidence of the homogeneity of teachers with regard to social class orientation.4 The majority of teachers do come from middle-class backgrounds, enter the middle-class occupation of teaching, and remain in this general social stratum. It is argued that teachers are selected primarily because they tend to adhere so rigidly to middleclass values, usually associating with other middle-class people, and accepting the security, status, and approval which conformity apparently can provide. In short, teachers traditionally have been thought of as good examples of what the culture should produce.

Statistically⁶ the typical American

⁴ Certainly there is consensus among people like W. L. Warner, Allison Davis, A. B. Hollingshead, W. B. Brookover, Margaret Mead, and Roger Barker. Robert Havighurst and Bernice Neugarten, in their book Society and Education (Boston: Allyn and Bacon, Inc., 1957) seem to feel that Wattenberg's Detroit study (reported in 14th Yearbook of the John Dewey Network), which indicates some increase in the rants nation-wide application, but this seems

⁵ Brookover points this out in a discussion of teachers internalizing the values of the community's power group. Sociology of Education (New York: American Book Co., 1955), p. 69. ⁶ The Status of the American Public School

school teacher is a woman, by a margin of three to one. She is married, although in slightly smaller proportion than other females in the labor force. She is, on an average, about forty-five years old and the mother of one child. She usually owns a home and a car, is conservative in the disposition of her income, and prone to engage in quiet kinds of leisure activities. She probably is observed participating in her church more than in any other community activity. She appears to be, in a word, "safe." ⁷

But when one walks through the looking class and enters the world of teachers, a disturbing group of differences insinuate themselves. Leaving a culture which considers education to be a valuable road to other primary or end values, which accords education the status of a way station, a stopping point en route, we enter a world where education is, in effect, life itself. In the world of teachers, education has to be an achievement, a terminal point. Even though many in the population have visited this looking-glass world for only a short time, in transit to another job or to marriage, while they were present, education was an end value. If this were not true, how could teachers exist, for example, in a culture in which vertical mobility is a primary value? For a teacher, getting ahead or being "promoted" can only mean leaving teaching: to conform to the value of being "somebody," the teacher would have to stop being what she is. This is readily observable in the typical organizational chart of any school district. Authority and prestige decrease as one moves down the chart from the superintendent, and the only group lower than teachers is the students, who are actually clients and thus hold a different relationship. In the adult social structure of the school, teachers inhabit the lowest rung of the prestige ladder, and remain there as long as they are teachers.

It is equally obvious that her status position isolates the teacher from others in the school society. Tradition has encrusted her relationship with students with the admonition to keep her social distance in order to maintain respect and the ability to discipline. Her age and her role as the authority figure in a formal organization further underscore her essential isolation. Should she turn to the other adults, commonly grouped under the heading "administration," she meets an equal obstacle. There is ample evidence's that the administrative group have discovered that an irreducible prerequisite to continued employment is a primary concern for good relations with the power structure of the community. Mr. Conklin is virtually ignorant of what Miss Brooks and Mr. Boynton do in the classroom, but they are painfully aware of Conklin's concern for the good will of parents and school board members, for it is the common dirge of school principals that, after attending to business matters and public relations, they have little time left for considered educational leadership.

Only recently, a group of teachers complained:

The sorry fact is that the person closest to the heart of formal schooling—the class-

Teacher, Research Bulletin of the National Education Association, Washington, D. C., February 1957.

⁸ The Stanford University Consultation Service, under the direction of Professor Robert Bush, has developed materials which tend to confirm this analysis of the social structure of the school. See also the work of the Harvard University School Executive Studies group.

⁷ Terrien, op. cit. Although Terrien's sample produced this particular cluster of characteristics, other studies have tended to confirm these results

room teacher—is also furthest removed from influence in the formulation of basic school policy [which is actually directed by] school bureaucrats whose activities and goals are often in direct conflict with the goals and activities of the teacher. . . . 9

The shrill pitch of this complaint indicates the level of desperation present in teachers when they realize that even the goods they sell, the curriculum, are being packaged for them at a different time and in another place. They are being cut off from their own experience. Textbooks and workbooks define their programs, curriculum guides and administrative regulations apportion their hours.10 Creative teaching is exalted, but is given the reception accorded to renegades, because always somebody else, be it the principal, the supervisor, the school board, the public, or some national magazine, knows better than the classroom teacher what is best in content, and when and how it should be taught.

TEACHER AND COMMUNITY

Similarly, the teacher finds herself on the outskirts of the community. She evokes the image of the stranger, the outsider, the "marginal man." She is not a member of the in-group, and yet she is apparently in sympathy with, and knowledgeable of, that in-group. Over a period of years, she comes to know a community well, from its surface social arrangements to its most intimate family con-

⁹ Statement of Local 61, AFL-CIO American Federation of Teachers, as reported in *The* San Francisco Chronicle, March 1, 1958.

meshed, at one time or another in her career, in the professional ritual of a curriculum improvement committee, but as Clarence Peterson indicated in his study "The Principal's Role in Curriculum" (unpublished Ed.D. dissertation, Stanford University 1953), even the principal has very little real part in the determination of curriculum. Most crucial decisions were produced by higher echelons.

flicts, and yet she is typically a part of none. She cannot participate extensively in community life,11 if for no other reason than that she carries both home and work responsibilities, either of which could command her full attention. But more important to this discussion, the teacher is not free to participate. Politics are off limits, she feels, if she wants to perpetuate her employment, so she stays away from this controversial area.12 Even in her classroom, she usually refrains from consideration of significant social problems which could arouse the ire of some special interest in the community.13 This is particularly true in the area of moral and spiritual values, which can mean almost anything to any group, any one of which will fight, bleed, and die before it will allow its pet tenets to receive the unbiased scrutiny of a teacher and her class. Even observance of holidays can produce discord in the sponsoring community if such holidays are based upon some religious tradition.

So the teacher goes her own way, traveling to her job in a different direction and at different times from the majority of the working force of her community. When they go to town to work, the teacher goes to the residential areas to her school. When other men and women still have hours of labor yet to

11 This is consistent in analyses of teachers' community participation level, from Willard Waller's Sociology of Teachers in 1932 to Terrien, op. cit., in 1955, including Lloyd Cook's studies, Community Backgrounds of Education (New York: McGraw-Hill Book Co., 1938), and the extensive study of Florence Greenhoe, Community Contacts and Participation of Teachers (Washington D. C.: American Council on Public Affairs, 1941).

12 NEA Research Bulletin, 1957, op. cit.
13 Documentation of this fact abounds, but the reader is particularly directed to Howard K. Beale's A History of Freedom of Teaching in American Schools (New York: Charles Scribner's Sons. 1041).

do, the teacher is through, and in some schools is encouraged to go home so that the janitor may clean her room without interference. She has time off at Christmas and at Easter, and she collects pay for almost every other holiday of consequence. Then in June she leaves for the summer. She has a "soft deal," her neighbors say, and so deserves little status in recompense.

Such a paucity of prestige is characteristic of what is, essentially, a female occupation. Along with nurses, librarians, and waitresses, school teachers find their careers interrupted by marriage and by pregnancy, a combination of intervening factors which are distinctively female. The regularity of such interruptions makes intermittency of employment a characteristic of female occupations, and contributes much to the instability, and consequent low status, of those occupations. Some school boards will not hire married women because of the chance of pregnancy forcing their untimely withdrawal from the classroom. Others refuse to hire unmarried women teachers for fear marriage may occur, and the dutiful wife will go with her husband to some other place. Teachertraining schools fret because their figures show that nearly 60 per cent of their graduates will not be teaching five years after graduation.14 Unfortunately (but understandably) the most attractive personalities are the first to become "intermittent," leaving, in general, the less noble to man the ramparts.

Equally damaging to prestige is the general feeling that experience contributes little to skill.¹⁵ Once a teacher has survived a probationary period of two or three years, she achieves all the status

and privileges she will ever attain. In fact, in some schools, the longer she teaches, the greater will be the suspicion that she must be "rigid," "unimaginative," "dull," or possess other ignoble characteristics. Should she depart from her profession for a span of years, she can return to harness with the minimum of adjustment of the traces. It will be assumed that there was no significant loss of skill during her absence, and that nothing of importance has superseded her previous training and experience.

Perhaps more disheartening to the teacher is her knowledge that in the eyes of her employers she can always be replaced. Interchangeability is a salient characteristic of teaching. It is not any particular person who is needed to confront a class; rather it is anybody, experienced or inexperienced, well-trained or poorly trained, good or bad. 16 All things being equal, the average school board would prefer a well-trained, experienced, capable teacher, if she isn't too high on the salary scale and is properly tactful, friendly, courteous, and kind. But if pressed by any one of a number of apparently insignificant reasons, most boards will not hesitate to substitute. In the final analysis, give or take a few factors, all teachers are the same in the thinking of those who decide.17

Thus teachers find it difficult to organize themselves into cohesive units which will insist on status, security, and standards. The disgruntled mumblings of a local teachers' association hardly produces a noticeable tremor in the community, and almost no one looks twice at

Bulletin, Vol. 36, No. 1, February 1958.

Caplow, op. cit.

¹⁶ The single salary scale, some certification laws, and the activities of many teachers' organizations have contributed, paradoxically, to a trade-union concept, which, when applied to teachers, denies them their much-desired status of individual professionals.

¹⁷ Caplow, op. cit.

the spectacle of the average teacher being paid the same as the city's street cleaner. Whatever discordant note teachers inject into the assemblages of the community is quickly suppressed by patriotic, ethical, or social conformity appeals. Teachers morally should not withhold their services to the community unless they consider themselves members of labor unions, and "everybody knows what that means." The only jurisdiction a teacher should have over her economic fate is to convince the public she is worth more by increasing the quality of her service. But what constitutes quality has never been defined by either the profession or the public to anyone's satisfaction.

THE VALUE DILEMMA

Thus we circle back to the original question of what constitutes a good teacher. And it is here we must retreat into meaningless generalizations, for to advocate one strength is to curtail another. The pronouncement that any one particular characteristic is surely a criterion of quality is a challenge to the critics of education to find fault, and heap scorn and abuse upon the already vulnerable. In other words, there is such a diversity of values within the culture which defines the qualities of teachers that almost any value system employed by teachers is acceptable to some and abhorred by others. This fundamental stand-off has produced the strange wonderland in which teachers must reside.

What I am suggesting is that teachers, rather than conforming to standard middle-class value patterns, have created a caricature of those patterns, and that this unreal system is, for them, the only reality in which they can exist. After all, they are being asked to maintain violently conflicting status quo's, while living on meager draughts of sham prestige and

petty remuneration. They face the insistent demand that teachers inhabit ivory towers, but these same towers must have large picture windows edged with seals of membership in all worthy causes. Teachers must be willing to assume, with eagle-valor (as they have historically), blame for the crime rate, the suicide rate, the servant problem, the labor problem, the divorce rate, the eyesight problem, the bribery problem, and even the pure food problem, to name but a few of the noxious "crimes." Faced with these multiple dilemmas, there is no defense except to create a looking-glass world, which, like the mirrors in the funhouse, will reflect whatever distortion the viewer chooses to see. If their language seems jargonese, specialized beyond meaning, and a trifle purple at the outset, it is because they must live in a cartoon. If pedagogy becomes no more than a semantic massage, it is at least a retreat from the rubble of the persistent bickering of their employers.

In other words, if there are marked signs of instability and conflict in the culture which creates and supports the schools and their teachers, there is sheer chaos for teachers, who must try to locate themselves in a culture with much of the same frustration as the hunter who pursues a relentlessly moving, erratic target. If the critics of education suggest that today's teachers are not instilling a sense of a cultural heritage in their students, it is precisely because teachers face the insurmountable task of discovering their own place in that culture.¹⁸

The ghosts and goblins which danced through the world of Ichabod Crane per-

¹⁸ Bernard Siegel proposes some interesting questions in his "Models for Analysis of the Educative Process in American Communities" in George Spindler, Education and Anthropology (Stanford: Stanford University Press, 1955).

sist. On the modern educational scene they have multiplied sufficiently to make the world of teachers, and therefore the school, into a somber fantasy of habitual discord.

I do not mean to suggest a hopeless dilemma, but neither does it seem appropriate to sustain the rosy glow which surrounds many assessments of educational problems. An analysis of the realities of teaching should be, in the words of the poet Yeats, "as cold and passionate as the dawn." Certainly there are possible avenues to salvation, but to travel them imposes a heavy burden of responsibility for self-examination, even to the point of abandoning some of the teddy bears of current assumptions.

It is increasingly evident that teacher recruitment needs to cast a wider net into new waters if the constricted range of kinds of people entering teaching is to be altered. Similarly, teacher-education programs apparently need to provide reliable mirrors in which the teacher trainee can clearly see his own image, and in dealing with this image, emerge with the kind of scar tissue which will enable him to face, without illusions, the inevitable web of controversy. Of even greater significance is the challenge to educational leaders to take an unflinching look about them and then propose bold, imaginative, even unpopular solutions to incumbent problems.

The future of education need not be a painful question if the professional family can learn to live within its means. If the reappearance of Ichabod Crane is a payment on an old debt, then let us square accounts, dispel our mythology, and move ahead.

-REVIEWS

UNESCO: Purpose, Progress, Prospects, by Walter H. C. Laves and Charles A. Thompson. Bloomington, Indiana University Press, 1957. 357 pp.

"The Governments of the States Parties to this Constitution on behalf of their peoples declare,

"That since wars begin in the minds of men, it is in the minds of men that defences

of peace must be constructed. . . ."

This statement from the Constitution of the United Nations Educational, Scientific and Cultural Organization has undoubtedly been quoted more often than any other statement from a United Nations document. Attributed by some to a comment by Clement Attlee, it represents the deep-rooted desires of millions who have vivid memories of the horror of World War II and who have contemplated the tragedy that a third World War would thrust upon mankind. The declaration becomes, therefore, not a theoretical statement concerned with the abstract, but a practical approach in the long and laborious search for peace.

While the General Assembly and the Security Council represent the political arenas in which nations can solve mutual problems, there was an early realization that another agency was needed that could, in the words of the UNESCO Constitution, "contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations" (Article I).

UNESCO: Purpose, Progress and Pros-

pects is an excellent review of the first ten years of this agency's existence. It is a book that has been badly needed, and it fills what has been a decided gap for the student of International Education and for the lay person interested in the operation of an agency whose reputation is excellent throughout the world. It is the story of the broadest attempt yet made by people from varying political, economic, and educational philosophies to meet and plan projects that will help men understand one another. This is but one aspect of the UNESCO program, and yet a perusal of any college library catalogue or of the publication lists by UNESCO will reveal how much has been done in this area. Varying from books that are concerned with the evils of racism to projects involving a greater understanding by the West of Eastern culture, the publications of UNESCO have earned the respect of scholars throughout the world.

In a book of this excellent quality it is difficult to select certain sections for discussion and eliminate others. Granted this, mention should be made of Part I, which is concerned with the origins, character, and evolution of UNESCO. The authors indicate the difficulties involved when intellectuals of the world attempt to decide upon principles and policies for an agency whose tasks appeared insurmountable in the days following World War II. If there was a physical drabness and destruction in Europe, there was on the part of the original group meeting at the Institute of Engineers in November 1945 a firm conviction that it was possible for man to reconstruct a world from which war could be eliminated a world in which the total energy of man could be channeled into building a more secure and richer life. The pattern of development that followed illustrated in many ways the background of the delegates at this and later conferences. Clement Attlee, Leon Blum, Jean Piaget and Concha Romero James all brought to this new agency their broad experience. Particular mention should be made of Jaime Torres Bodet of Mexico, Minister of Education, whose work in combating illiteracy did much to help formulate the philosophy of Fundamental Education.

Attempts to define a specific UNESCO philosophy have proved difficult. The Constitution identified broad concepts; yet efforts to bring these concepts into sharp focus have not proved too successful. Julian Huxley, who served as first Director General, wrote a philosophy for the agency in his book UNESCO: Its Purpose And Its Philosophy (Washington, Public Affairs Press, 1947), but this was not accepted by the General Conference, and the statement became one of Mr. Huxley's personal views.

Reduced to simple terms, the objectives may be considered as contributing to peace and security through the advancement of knowledge, and promoting human welfare and development of international understanding. Under these broad headings, as indicated by the authors the task of defining and delineating projects has been difficult. There are many international nongovernmental organizations associated with UNESCO and, as would be expected, a number of these organizations are interested in developing projects within their own area of interest. In addition, there are regional and national interests. For the many newly independent nations, assistance in development was of prime importance. The Western, industrialized nations were concerned with promoting the scholarly, intellectual aspects of UNESCO. Some Asian countries were interested in having the West become acquainted with Eastern culture. There were delegates who felt that while many Eastern countries needed the technical assistance furnished by the West, the East could reciprocate with materials which would inform the West of values in the Eastern culture.

The problem of deciding which projects to develop has proved difficult. The final selections made by UNESCO, as revealed in its publications and reports, show a wide variety of areas. Some projects started in the early postwar years to fulfill certain needs for that particular period have continued because their functions were proved to be desirable on a permanent basis. The Bulletin for Libraries is an example.

The authors have not hesitated to point out the failures as well as the achievements of UNESCO. The Marbial Valley and Hylean Amazon projects failed because of the lack of study by the states involved and the inexperience of UNESCO specialists. The authors indicate that while UNESCO has had success in developing international understanding "through special groups, it has developed no project of its own with a world-wide mass appeal, nor has it been able to stimulate action of this kind within member states." Part of this difficulty stems from the reluctance of national states to use mass media for promotion of the concepts found in the Constitution.

On the positive side, UNESCO has served as a coordinating agent for the educational, scientific and cultural resources of the world. If it served no other purpose than as an international clearing house for disseminating educational statistics and reports on new scientific discoveries and information on the cultures of the world, it would be an invaluable agency in our contemporary world. Fortunately, UNESCO is not so narrowly conceived. It has in many instances proved itself a catalyst for the development and expansion of concepts throughout the world, that is, Fundamental Education.

UNESCO: Purpose, Progress and Prospects is a book that will be referred to for many years. Its objective analysis of the first decade of UNESCO's existence is a classic in the history of International Education.

David G. Scanlon Teachers College, Columbia Separate and Unequal, by Louis R. Harlan. Chapel Hill, N. C.: The University of North Carolina Press, 1958. xiv + 290 pp. \$6.00.

The principle of "separate and equal" as applied to the provision of educational facilities for Negroes and white people dates from the opinion rendered in 1849 by Chief Justice Shaw of Massachusetts in the case of Sarah C. Roberts vs. The City of Boston. Sarah Roberts, a five-year-old Negro child, had applied to enter a public school in Boston and had been refused because of the color of her skin. The action of the school authorities in her case was upheld by the courts, but six years later the Massachusetts Legislature outlawed separate public schools for Negroes.

After the Civil War and the subsequent period of Reconstruction, this principle came very gradually to be recognized in the states that had formed the Confederacy and also in several which had not seceded from the Union but which contained a considerable Negro population. In most of these states it received at least a degree of lip-service, although in actual practice it was more or less ignored (where it was not openly flouted) until comparatively recently. Generally speaking, vastly more emphasis was placed on separateness than on equality.

From time to time opinions handed down by the Supreme Court of the United States have sustained the constitutionality of the "separate and equal" principle until May 17, 1954, when this was flatly denied in the Court's momentous decision of that date. Henceforth the Constitution was to be interpreted as holding that "... in the field of public education the doctrine of 'separate but equal' has no place. Separate educational institutions are inherently unequal."

Harlan has studied in detail a rather short period in the history of the development and working out in practice of the "separate and equal" doctrine in Virginia, North Carolina, South Carolina, and Georgia. The subtitle of the study is "Public Schools and Racism in the Southern Seaboard States 1901–1915." He has chosen this period partly because it was then that the Southern Education Board was active. It is his conclusion that the period was, more than anything else, one in which the "separate and equal" principle was deliberately contravened in all four states; that at its end there existed grosser inequalities of educational opportunity between Negroes and white people than at its beginning, in spite of increased appropriations for education. Hence the title Separate and Unequal.

A study as limited as this one, both as to region and as to historical period, can scarcely fail to leave the reader with an impression of incompleteness. Questions concerning the educational and other rights of Negroes extend back to the first importation of slaves from Africa, early in the seventeenth century, and they form today and have formed for nearly a century one of the most burning issues before the American public; they affect every state in the Union. Therefore a detailed and documented study limited to four particular states over a fifteen-year period seems to belong in a series of volumes covering the whole topic. An extensive work of this sort, authored by competent specialists, is needed today. Any part of this vast theme needs to be seen against the background of the whole. Furthermore, a consideration of all the volumes, coming as they would from various hands, would no doubt serve to temper the severity of individual judgments or at least to set them in better perspective. Perhaps the publishers of the present volume have such a series in mind, but if so the fact is not mentioned.

The book is heavily and, in the main, carefully documented, as befits the treatment of a topic so controversial. The author is keenly alive to the unreliability of many educational statistics. In his introduction he assures the reader that "The figures of the crusading educational propagandists have been used rarely and with caution. Wherever possible, the statistics of federal and state governments were used." (p. ix)

Throughout the period studied the efforts of the organizations and individuals working for a fair deal for the Negro in education were largely failures, in the opinion of Mr. Harlan. As a main reason for this he notes a too-prevalent attitude of conciliation-a readiness to temporize, to make concessions, and to accept unfair compromises. He finds that Southern educational campaigners generally urged the building of schools and working for a more equitable distribution of funds, but that some of their Northern partners did not give the support necessary to ensure any real degree of success. From a thorough examination of available sources he infers that the Southern Education Board accomplished little if anything of note for the Negro. He contends that a just appraisal of its work, "... while recognizing its major role in the achievement of fuller educational opportunity for Southern white people, cannot escape the conclusion that it failed in its program of Negro education and also failed to challenge or deflect the anti-Negro movement which it paralleled." (p. 254)

As a Southerner, born in Mississippi, educated in Georgia and at Johns Hopkins University, and presently teaching at East Texas State College, Mr. Harlan can hardly be accused of anti-Southern bias or inability to understand the Southern way of life. He sees the problems of a biracial society at first hand and his full knowledge of and intimate acquaintance with the South and its people, both Negro and white, are evi-

dent throughout his book.

CLIFTON L. HALL The George Peabody College for Teachers

Selected Readings in the Philosophy of Education, by Joe Park. New York, The Macmillan Company, 1958. 440 Pp. \$5.00.

This collection of readings should prove helpful to any introductory course in philosophy of education. The book is organized in six parts: The Place of Philosophy in the Study of Education; The Pragmatic Philosophy of Education; Idealism; Realism; The Catholic Philosophy of Education; and The Philosophy of Education in Some Protestant and Jewish Thought. Thus, the text presents most of the important positions and issues in philosophy of education. Furthermore, the selected readings include statements by outstanding representatives of the different philosophies. A biographical sketch of each author provides an interesting addition to the readings.

Granted the distinctive merits of this text. it might be well to discuss some of its limitations. A first fault, common to many collections of readings, is that excerpts sometimes lose their meaning when removed from their source. Thus, the selections from John Dewey's Democracy and Education and Experience and Education will prove difficult for students who are unfamiliar with Dewey's general philosophy. John Childs's major thesis in Education and Morals is lost in the four-page extract in this collection. It is impossible to appreciate the historic significance of George Counts's essay, "Dare the Schools Build a New Social Order?" in the two-and-a-halfpage condensation presented in Dr. Park's book. It is unfortunate that Robert M. Hutchins' contribution is limited to a fivepage statement from The Conflict in Education. (The Higher Learning in America would have been a better choice.)

Another criticism of this anthology is that it includes readings that have little value for the study of philosophy of education. Thus, the chapter "Jewish Education in the United States at Mid-Century," by Israel Chipkin, has no direct bearing on philosophy of education. As a matter of fact, Part Six ("The Philosophy of Education in Some Protestant and Jewish Thought") would be more useful if it considered church-state relations in America.

Despite these shortcomings this text can prove a valuable supplement to an introductory course in philosophy of education,

since it is intelligible and informative. Nevertheless, the customary warning must be entered about textbooks, the academic tranquillizers. Hutchins is at least half right when he says that textbooks have done as much to degrade the American intelligence as any other single force. We can but hope that the student, rather than being sated after reading this book, will go on to ex-

amine unabridged, unexpurgated statements in philosophy of education. One thing is certain: how far the student carries his search to understand the philosophies of education will depend, in large part, upon the teacher who assigns the text.

M. I. Berger New York State College for Teachers, Albany

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by ROBERT M. W. TRAVERS, University of Utah

This book provides basic information needed by educational research workers and gives prospective teachers an understanding of the aims and methods of educational research. Reflecting the author's experience as a research worker, teacher and administrator, this work emphasizes the role of theory in the development of research and in educational planning.

1958, 544 pages, \$6.00

THE SCHOOL IN AMERICAN SOCIETY

by RALPH L. POUNDS, Teachers College, University of Cincinnati, and JAMES R. BRYNER, Superintendent of Schools, North College Hill City, Cincinnati

Analyzing American social trends and problems, this text is divided into four parts: a section of general orientation; a compact account of general social trends; and an analysis of selected problems, with conclusions as to the role of the school in such a context.

Ready April 1959



by LEONARD H. CLARK and IRVING S. STARR, Hillyer College Ready Spring 1959

LEARNING TO TEACH IN THE ELEMENTARY SCHOOL

by MARGARET G. McKIM, CARL W. HANSON, and WILLIAM L. CARTER, Teachers College, University of Cincinnati

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SOCIAL STUDIES IN ELEMENTARY EDUCATION

by JOHN JAROLIMEK, San Diego State College
Published January 1959



TEACHERS COLLEGE RECORD

The Mathematics Education of Youth

A Comparative Study*

HOWARD F. FEHR

PROFESSOR OF MATHEMATICS, TEACHERS COLLEGE

HAT kind of instruction in mathematics and how much is received by the youth of the world up to age fifteen? Sixteen countries† supplied the

*Dr. Fehr is a member of several Commissions in the field of mathematics, among them the International Commission on Mathematics Instruction (1959-62), United States Commission on Mathematics Instruction, and Commission on Mathematics, College Entrance Examination Board. He is an Observer for the National Science Foundation and attended the Pilot Course on Mathematics Education at Sevres, France, under the auspices of O.E.E.C. (Organization for European Economic Cooperation), successor of the Marshall Plan.

† In each of these countries, during the years 1955-1958 a subcommittee of the International Commission of Mathematics Instruction investigated for its particular country the program in mathematics education for children from six through fifteen years of age. This discussion is a synthesis of all of these studies. The countries represented are: Austria, Canada, Finland, France, Germany, Great Britain, Hungary, India, Italy, Japan, Jugoslavia, Netherlands, Norway, Russia, Sweden, and United States of America

writer with a summary for their country on this topic.

To compare or contrast the programs of the different countries would be exceedingly difficult and not very useful. This report will attempt merely to give an over-all view of mathematics instruction in all the countries concerned, with regard to the following phases: (1) the material or subject matter included in the program; (2) the school organization and the sequential arrangement of subject matter either by years of instruction, grades 1 through 9 or 10, or by age, six years to, but not including, sixteen years; also the time allotted to mathematics instruction; (3) the selection, promotion, and segregation of pupils into special classes—particularly those classes designated as preparatory to university entrance; (4) the methods of instruction with special reference to desired goals of pupil achievement; (5) the preparation of teachers of mathematics; (6) the systems of examinations; and (7) the directions and trends that instruction is taking with regard to philosophical, cultural, and psychological aspects of learning.

SUBJECT MATTER

Mathematicians are prone to think of mathematics and school arithmetic as two separate and only slightly related disciplines. Thus school arithmetic (Rechnung), or computation, is a set of rules and mechanical operations to be learned in the early years of schooling, while arithmetic related to algebra is the theory of numbers and is the beginning of the study of mathematics. This point of view was present in many of the sixteen reports. The subject matter thus studied in these years can be classified as number or computation, algebra, geometry, and numerical trigonometry.

Under number the following topics are universally studied: numbers as counting numbers, at first to 5, then 10, then 20, then 100, then 1000, and up to 10,000,000; the decimal system of notation; Roman numerals to thousand; the addition and subtraction of whole numbers with and without carrying or borrowing. In many countries the Austrian Method‡ of subtraction is mandatory right from the start.

Multiplication tables are memorized, and include all combinations up to 10 x 10, some countries demanding up to 12 x 12, and one country including all com-

‡ The Austrian method uses the principle of adding the same number to the minuend and subtrahend. Thus in 42 — 18, 10 is added to the 2 in 42 to give 40 and 12, and 10 is also added to the one 10 in 18 to give 28. Then the subtracter says "8 and what gives 12?" Answer, "4." Then "2 and what gives 4?" Answer, "2" The difference is 24.

binations to 20 x 20. The multiplication of whole numbers begins with a single-digit multiplier, and then two- and three-digit multipliers, preceded by multiplication by powers of 10.

Division, considered the most difficult process, is the last to be taught, beginning with divisors of 2, 3, 5 and 10, and proceeding to two- and three-digit divisors. Once the process has been taught, there are applications to simple problems of

everyday life.

The meaning of simple fractions as equal parts of a whole such as 1/2, 1/3, or 1/5 is introduced early, but actual operations with fractions (called common in America and often referred to as vulgar elsewhere) are delayed until all operations with the whole numbers have been taught. The first operation consists of changing (so-called reducing) of fractions to the same denominator, and in quite a few countries the method is based on that of finding a Least Common Multiple. Then the four operations with fractions are taught, including operations with mixed numbers. Finding the Greatest Common Factor is also stressed in many countries.

Decimal fractions or, better, fractions written in decimal notation are usually delayed until the fifth or sixth year of instruction. Before this, however, countries using the metric system or a decimal money system have included numbers written with a decimal point (or a comma). However, the four operations on mixed decimals—that is, numbers with whole and fractional parts written in decimal notation—are taught in all countries. The equivalence of common fractions to decimal fractions and making the transformation from one form to the other culminate this aspect of computation.

Along with the whole numbers, sys-

tems of measures are introduced and gradually extended so that operations can be performed with them. The measures include the local national ones as well as the metric system, but the latter is delayed until the seventh or eighth school year in all countries that do not use it as their basic system. The measures include length, area, volume, capacity, weight, money, and time. Exchange of money is taught in most countries.

Percentage as a special topic receives much emphasis in all countries, and applications are made to simple and compound interest, discount, chain discounts, profit and loss, commission, borrowing, installment purchases, stocks and bonds, and other business affairs. The application of arithmetic to business and daily life problems seems to have grown in amount and stress in all countries during the past few decades.

Ratio and proportion are taught universally, a very common part of this work being the rule of three. A few countries still teach alligation* simple and alligation compound with applications to mixtures, work problems, and the like. There are also applications to scale drawing and map-reading. The unitary method was commonly mentioned as required work.

All countries teach the concept of average, by which is meant finding the arithmetic mean of a set of numbers. A few countries teaching divisibility by 2, 3, 5, and 9 are using divisibility by 9 as a check on the operations of multiplication and division. Prime numbers receive scant or no attention. It is noteworthy that no country reported teaching numeration to any other base than 10, nor

did any country report teaching the fundamental laws of arithmetic (as a Ring) in developing the rules of operation. Thus it must be generally concluded that the teaching of arithmetic is looked upon as the development of a tool with many tricks and manipulations that are to be used in special types of practical problems. Theoretical considerations are at a minimum. Reasoning is not demanded, but skill in manipulating is of the essence.

Work in geometry begins with study of the ruler, using it to mark off and to measure distances. The common geometric figures-square, rectangle, triangle, and circle-are illustrated by drawings and observed in nature. In all countries the first concepts taught are those of perimeter and area of the square and rectangle. The first approach to area is through the use of squared paper, where the squares in the interior of the figure are counted. Continuation of the study of geometry may be described as a gradual approach to demonstrative methods by way of concrete measurements, intuitive study of properties of plane figures and solids, simple deductions, and finally a study of the nature of proof. In the intuitive approach the measurement of lines and angles, the perimeter and area of plane figures including the circle, the areas and volumes of the common solids -cube, rectangular prism, regular prism, right circular cylinder, regular pyramid, right circular cone, and sphere-are covered. The results are determined by practical means through use of models, and then generalized by formulas. Work in geometry next concerns itself with parallel lines, perpendicular lines, angle bisectors, and congruent triangles and rectangles and is accompanied by much construction work with compasses and rulers as well as set squares, triangles, and protractors. Many of the usual theorems

Alligation refers to the rules of finding the proportions of various ingredients in a mixture to meet specified requirements on cost or strength. The word disappeared from American textbooks more than forty years ago.

of plane geometry are thus evolved as facts or relation without any formal deductive system. The third aspect of intuitive geometry may be called relational, and here are studied the base angles of an isosceles triangle, complementary, supplementary, and vertical angles, the relation of sizes of angles to the opposite side of a triangle, the sum of the angles of a triangle, and the Pythagorean relationship for a right triangle. At this point in instruction practically all countries report the finding of squares and square roots of numbers, both by numerical methods and by the use of tables. Newton's method of division and averaging the quotient and divisor is the only method reported as in use, the Euclidean method having gone into the discard at this stage of learning.

Along with the Pythagorean theorem, ratio and proportion are introduced into geometry via similar triangles and then the sine, cosine, and tangent ratios are defined for angles between o° and 90°. These ratios are used to find sides and angles of right triangles from given numerical values for the other sides and angles. Applications are made of the trigonometric ratios and the Pythagorean theorem to practical problems, especially those of simple surveying and navigation. In this study such instruments as the clinometer, hypsometer, transit, sextant, and angle mirror are used. The work is accompanied by drawing to scale and by making of simple plans.

In most countries, but not all, by the age of fourteen years, or in grades 8 and 9, the children have been introduced to the axioms, the use of definitions, the simple syllogism, and a deductive chain of theorems, that is, the study of Euclidean deductive plane geometry. The amount of deductive geometry taught by age fifteen (grade 9) varies from a study

of only congruence and parallelism to that of completion of all theorems on rectilinear figures, the circle and angle measurement, similarity, area, and the regular polygons. There is far more variation in the amount of geometry studied in the various countries than there is in the content of algebra.

The approach to algebra is usually through the generalization of arithmetic by the use of letters for numbers. Thus in many countries arithmetic means introductory or manipulative algebra. Letters are used with fundamental operations and then equations are introduced. Other countries approach the simple equation through the study of formulas, where letters are used to formulate general rules. A third approach is to begin algebra by the study of positive and negative numbers, develop the laws of these numbers and formulate them with letters leading to identities such as

$$x + y = y + x$$

and $a(b + c) = ab + ac$

The stress in the algebra study at age fourteen or fifteen is on the solution of equations, first the simple equation in one unknown, then two equations in two unknowns (or three unknowns), and finally the quadratic equation. In so far as the reports show, the emphasis is on tricks and formulas and not on proof. The word theorem or proposition is a rarity in the first study of algebra. The remaining study of algebra is given over to special products and factoring, the linear function, direct and inverse variation, and the graph of the linear and quadratic function. Only two countries report more study, including such topics as highest common factor, lowest common multiple, involution and evolution, fractional indices, surds, the function $y = \sqrt{x}$, and the derivative of a polynominal.

This, then, is the picture of what the pupil has been taught. What does he really know? This is hard to tell, but it can be said that in all countries the fifteen-year-old who has continued his study of mathematics through the first nine or ten years of school can compute in a mature manner with the positive rational numbers, in a decimal system of notation, even though he cannot rationalize what he does; has a fairly useful and practical knowledge of geometry with respect to mensuration and common relationships; and can manipulate algebraic expressions and solve equations and problems in a structureless system of algebra. He can make simple deductions, but his entire concept of proof, if any, is limited to that of theorems in geometry. He really does not know what mathematics is, or how it is applied, but he has a large body of information upon which, if he is inclined or interested, a study of mathematics can be built between the ages of sixteen and twenty-one. The whole program, the world over, is overloaded with "doing," and it would appear that a reformation of this program with emphasis on "reasoning" and an elimination of much useless and extraneous busy work could enliven the subject and leave the fifteen-year-old with a much clearer and stronger picture of what mathematics study really is.

SCHOOL ORGANIZATION AND TIME ALLOTTED

One thing is certain: the school organization and selection of students is unique in each of the countries having compulsory (and free) education. The starting age for grade 1, or first year of formal schooling, varies from five years to seven years. Thus by the age of fifteen, youth in the several countries have had from eight to ten years of schooling. But the

number of years of instruction is modified somewhat by the fact that the number of clock-hours of instruction per week, and the number of weeks per year vary greatly from country to country. Thus the total allotted time for mathematics instruction compared with the entire instructional time in a given country varies from 20 per cent to 9 per cent. Statistics are boring, so the writer offers instead a few sample programs and time allotments that are indicative of the highest, lowest, and median of the countries re-

porting.

In all countries, the first four years of instruction is given in an elementary or folk-school which all children, regardless of ability or social origin, may attend. The classes are taught by a teacher who teaches all subjects, that is, there is no special teacher for mathematics or the other branches of learning. The only exception to this statement is the use of special teachers for art and music in these four grades. Evidently most countries assume that art and music are special talents that not all teachers can learn to teach, but that this is not the case with language, mathematics, and history.

All countries continue the general elementary education under one teacher up to the end of the sixth, seventh, or eighth grade. However, in many cases there is a splitting of those who "can" from those who "cannot" into separate schools and separate programs beginning at the fifth, sixth, or seventh school year. Only two countries, Canada and the United States, maintain a common school throughout the first eight years of study. There is quite general agreement on compulsory education of all children for eight years, but this is not strictly adhered to. The trend is to increase the number of years of required attendance at school. In all countries mathematics is a required subject of instruction throughout these eight years. Where the capable pupils are separated into special schools, mathematics study for these pupils is required every year up to the age of fifteen, and sometimes beyond.

In Russia, formal schooling begins at age seven. During the first seven years of schooling (up to age fourteen), there are 6 lessons in mathematics every week for 33 weeks of the year. That is 198 lessons per year, and this comprises 20 per cent of all the teaching time. During the first five years all of the work is on arithmetic; during the sixth year there are 2 lessons each week in algebra, geometry, and arithmetic, and during the seventh year, 2 lessons in geometry, 4 in algebra. During the first four years one teacher gives all the instruction, after grade four all teaching is done by specialists. The instruction in all seven years is compulsory for all students, with no separation into special classes.

In France, elementary schooling begins at age six and continues for five years. During the first three years 3¾ hours per week are devoted to the study of mathematics—12 per cent of total teaching time. During the fourth and fifth years, the time is increased to 5 hours per week or 16¾ per cent of teaching time. However, in the next four years, where the students study in separate classes according to ability and future aims, the weekly study of mathematics is reduced to 2½ hours, soon to be increased to 3 hours or only 10 per cent of teaching time.

In the German schools, for the first five years of study of those entering the Mittelschule or Gymnasium, mathematics instruction takes 15 per cent of the teaching time, and this same per cent applies to Norway, England, and Sweden. In Japan, since the reorganization of its schools after the war, there is a six-year common

elementary school, and during the first four years only 10 per cent of the teaching time is given to mathematics. This is increased slightly during the fifth and sixth year, and there is a trend to increase the amount of time given to the study of mathematics. Generally it appears reasonable to say that mathematics instruction of youth up to age fifteen occupies about one-seventh of all the teaching time, and that this ratio decreases as youth continue studying beyond age fifteen, unless they go into specialized study of science. How few do this will be shown later.

When pupils leave the common elementary school to go to special schools to take special courses such as are offered in the *Gymnasium*, *Realskole*, grammar school, high school, college preparatory course, and the like, they must be assigned either by directive or by choice. In most cases the selection is based on results of examinations, those in mathematics being an important factor. The other areas examined are usually the national language and history. The examination is usually written, but in some cases includes an oral examination also. The following examples are typical.

In Finland, at the end of the fourth grade all pupils seeking admission to the secondary school sit for an examination. Recently about one-half of all school children took this examination. Of these, 73 per cent passed the examination, but owing to lack of space, only 60 per cent were admitted. Hence, beginning at grade 5 (ages eleven and twelve) only 30 per cent of the youth of Finland have a possibility of professional careers. What part of this 30 per cent succeed in getting to college is hard to say, but by comparison with other countries certainly at the very most one-fourth or about 7 per cent of all the youth.

In England, a similar examination procedure is necessary to enter the grammar school and takes place at age eleven. The percentage of all the pupils passing the examinations varies throughout the country but averages about 20 per cent. In Scotland this examination is postponed until pupils are twelve years old. In India, where the curriculum is very advanced, there is an examination every year for passing to the next grade. About 50 per cent fail these annual examinations, which are now regarded as the worst feature of India's educational system. Children in France, Germany, and Denmark must take examinations at a very early age (ten or eleven years) for admission to the schools preparing for university attendance. In France, selection is made at the end of the fifth school year, by the use of the pupils' previous marks, but the pupil may apply to take a written examination if his grades disqualify him. Norway has an examination at the end of the seventh school year, and Jugoslavia at the end of the eighth. In the Netherlands there is an informal examination in mathematics at the end of each year in which about 10 per cent fail and must repeat the year's work. But at the end of the sixth year there is a very severe examination which only a very small percentage of the total school population (less than 15 per cent) pass, thereby becoming eligible for admission to the Gymnasium or Higher Burgher School.

Only Canada and the United States have no selective examinations. However, at the end of grade 8 or 9, the pupils are advised to take programs adapted to their inherent abilities and their probable life work when they finish school, but it must be stressed that the choice made is voluntary on the part of the pupil and his

family.

Segregation of pupils at too early an

age must be looked upon with grave reservation as to its consequence in this day and age. No matter what is said about transfer, it is universally true that once ruled out, a pupil rarely has opportunity to cross to the better track. Between the ages of eleven and fourteen, boys and girls are undergoing physical changes that have real psychological implications. It would appear that a choice at age fourteen would be far more significant of real ability and opportunity than one made at age eleven. In Germany, and the same would hold for many other countries, about 25 per cent of fifth-grade students enter the Gymnasium, but only one-fourth of these finish the full nine years. Of those completing the Arbitur, only 30 per cent are in the scientific line and this means that about 2 out of every 100 pupils completing grade 5 study mathematics throughout the next nine years so as to enter a university in which they can major in mathematics or science. In this day and age, this is too small a number for the needs of our society. Perhaps the grave shortage of mathematicians and teachers of mathematics may in some measure be traced to too highly rigid selective processes at too early an age.

TEACHERS OF MATHEMATICS

In all countries, a shortage of teachers of mathematics exists and in many countries it has reached a critical stage. There is bound to be a relaxing of certification qualifications in the years immediately ahead, so that any report on teachers of mathematics must be based on stated requirements rather than on those actually achieved. Generally, teachers of grades 1 to 4, and in the elementary school of grades 4 on to 7, 8, or 9, have graduated from a secondary school in the academic, that is college preparatory, line

and have attended a teacher-training college or pedagogical academy for a period of from two to four years. They have had courses in teaching arithmetic, but have studied very little or no mathematics after entering their teacher-training program.

Teachers in the program from grades 5 to 8 (or 9) may have been trained in teachers colleges, and in addition have continued their education in special subjects and taken examinations in these subjects before being certified. Teachers above the eighth year of study are university graduates with a major or minor in mathematics. They are specialists in their field. In general, the training of teachers of mathematics as specialists in instruction for the fifth to the tenth grades in European countries includes the study of far more mathematics than is required in Canada or the United States.

PHILOSOPHY OF INSTRUCTION

The aims of mathematical instruction, the methods and materials used in instruction, the proposed reforms, and the trends in the various countries show great contrasts as well as universal movements. These pedagogical phases are reflected in two outstanding viewpoints which we can label (1) mathematics for the better life, that is, for its intrinsic value, or for its own sake; and (2) mathematics for better living, that is, for its application to science, technology, and social problems that will result in more efficient practical day-by-day living. Thus, for one country the goal of mathematics instruction is stated as follows:

The pupils must learn to compute knowingly, rationally, and quickly both in written and oral work; to use arithmetic to solve practical problems and to answer questions; to develop logical thinking, initiative and creative powers; to acquire logical and systematic concepts of space; to solve practical

exercises essential for use in polytechnical study.

Another country reports that the purpose of teaching mathematics is:

To develop basic knowledge and lay the foundation for further study. In arithmetic, problems are preferentially applied to the industrial and technical sphere; in algebra, the start is with concrete problems and principles that can be applied to the solution of equations; operations in algebra are by functions-first experimentally and numerically-followed by logical elementary proofs of theorems. This simplifies the transition to deductive geometry. In the elementary school inductive methods are used, namely observation and description, making of models, abstraction of properties, formulation of definitions and laws and finally logical models, the latter however not in perfection.

The opinion that teaching in mathematics must begin with concrete physical things, the study of which, by inductive methods, leads to certain abstractions from which a mathematical system can be built, prevails all over the world. That arithmetic could be taught without the use of rather elaborate equipment—beads, abaci, number charts, colored pegs, Montessori materials, and so on ad infinitum -is an alien thesis to present-day elementary mathematics instruction. So it appears that the mathematical education of youth must reflect the historical development of mathematics—that there must be a period of informal experience, then an attempt to explain the environment out of which fundamental concepts emerge and are clarified and refined, then a formalization of the mathematics with memorization and application.

In the spirit of this theory, instruction during the first four or six years is guided by a predominance of psychology of learning in which more attention is given to the child's learning ability and his social needs than to the subject matter. In

many countries, however, just before the examination for admittance to the secondary program the only social need becomes the learning of sufficient skills and tricks for passing the examination. Thereafter, in the secondary school the subject matter of mathematics and its gradual axiomatizing become the predominant factors. Since the child's ability to learn is not considered, a large and continuous rate of failure persists in the secondary school.

A glance at most textbooks for ages six to fifteen reveals the startling fact that there is a tremendous amount of repetition of previous material, repeated in the same dull spirit as originally presented several years prior. Evidently no one expects a child to have learned and remembered the material taught in previous years. It is rather encouraging, then, to see a few countries taking a decided stand against this stultifying method by saying in effect: "The work of the secondary school is not to repeat the study of the elementary school but to base its teaching and build new knowledge on the mathematics previously learned." If our students were expected to know what they had been taught—the material on which they had passed examinations the year before—there might be a resurrection of student interest in mathematical study and in teaching methods that could well border on the miraculous.

Before the discussion turns to some promising trends in the teaching of elementary arithmetic it should be noted that there is one instructional feature that all countries insist upon—mental arithmetic. However, the concept of mental arithmetic is not the same for all countries. Whatever it is, almost universally the use of and stress on mental arithmetic begin in the second year of elementary school and continue, usually with daily

(or at least periodic) drills, right through the age of fifteen years. The one concept of mental arithmetic that is predominant is that of rapid calculation without the use of paper and pencil. Short cuts and tricks are learned (sometimes rationalized), but the purpose is to save time for later mathematics. Speed is of the essence and of course accuracy is demanded. The second concept extends beyond computation, to problem solving, allowing use of the basic structure of the decimal system and its laws of operation for the mental estimation, approximation, and exact solution of problems as well as for checking. Its emphasis is on thinking, reasoning, and understanding, and not on speed. This concept offers power to the initiative and creativity of pupils' learning, as well as interest and challenge in the subject, and it in no way deters speed for those pupils who are capable.

SOME TRENDS

All countries are engaged in studying their mathematics education. A few are conducting systematic experiments, but most of the study is merely the scattered efforts of a few leaders or interested persons. Whether as a result of parental pressure, experiment, or changing cultural patterns, there has been a gradual shift from mere rote-manipulative teaching of arithmetic through complicated computational exercises, to the teaching by rationalization of the fundamental concepts and laws underlying the operations of number, including the decimal system of notation. Such a shift can be looked upon only with favor by those interested in the mathematical knowledge of our future society.

The result is that the work of the first four or six years is no longer regarded as reckoning or arithmetic, but as mathematics and is being labeled as such in the

schools. The one drawback to the rapid promotion of this "rational" point of view is the lack of knowledge of the elementary school teacher regarding the nature of the mathematical structure of arithmetic. It appears that to date no countries are making any determined effort to improve this state of affairs.

Along with this shift in emphasis there has been a decrease in the home work demands upon the pupils, and a relaxing of requirements by delaying the introduction of newer topics. Thus the operations with fractions is now a fifth- or sixth-year instruction topic in all but a few countries; and these fractions are frequently limited to simple denominators having fairly easily discovered Least Common Multiples. The elementary school is being extended from the fourth to the sixth or a higher grade, and the trend is strong to have all children undertake the same mathematics study throughout a period of eight years. The same study seems to make sense, but if this implies the same amount, at the same rate of teaching, then it contradicts all that we know of the great individual difference in ability and in mental growth of children in all countries.

The following trends exhibited by a few individual countries are merely noted. (1) Delaying the more logical aspects of plane geometry and preparing for it by introducing theorems and deductions in the initial study of algebra. (2) Reintroducing rigid motion into the study of geometry, that is, the intuitive approach to the preservation of metric properties by rotation, translation, and reflections. (3) The unification of mathematics study by eliminating separate hours for the study of arithmetic, algebra, and geometry, and using these subjects indiscriminately to help each other, especially in early years of the secondary

school. (4) The early introduction of algebra through the generalization of the laws of arithmetic. (5) The use of the mathematics books of the school library as resource and enrichment material as well as a necessary part of mathematics study. (6) An ever-increasing use and construction of gadgets and models. (7) Stressing the metric system by making it the only one to be learned and used. (8) Introducing some concepts of modern mathematics so as to prepare for the study of modern algebra at the university level, and also to give clarity and unity to the elementary mathematics. (9) Introducing aspects of descriptive statistics in both arithmetic and algebra.

ELEMENTARY MATHEMATICS IN THE UNITED STATES

The present program in mathematics for youth six to fifteen years old in the United States can best be described as average when compared to that in other countries.* Up to about 1925, the teaching was for the most part a rote-manipulative, tool-developing type of instruction. From 1925 to 1940, a social utility program was introduced whereby arithmetic and geometry were to be learned when and as they arose in social problems in the life of the youngster. This method of teaching proved a complete failure. Beginning around 1940, a meaning theory of teaching was advocated and is rapidly gaining favor. This theory stresses the teaching of arithmetic as an ordered structure of number, and geometry as a systematic structure of space, which is abstracted from physical objects and the world around us through the study of their characteristics and properties. In

^{*}Sydney Tompkins, "The Development of Arithmetic as an Elementary School Subject Since 1900." Unpublished Doctoral Study, Teachers College, Columbia University, 1957.

arithmetic all learning is rationalized; the concepts of numerosity, order, numeration, and the fundamental operations are developed intuitively and used before any attempt is made to systematize the fundamental relations and facts.

Once the concept of counting is developed, the children discover, write, then memorize through drill, all the fundamental facts needed for the four fundamental operations with numbers. The commutative, associative, and distributive laws are used in learning the facts and the algorisms of the fundamental computational processes. Since subtraction is conceived fundamentally as removing a known subset from a given universe, and then the problem is to find the complement of the subset, we teach the takeaway exchange algorism and not the Austrian Method. We have found that for rationalization this method pays real dividends, and we reserve the Austrian Method for the time when we introduce the new system of positive and negative numbers. Long division is used to introduce division with whole numbers using one-, two- or three-digit divisors, and short division is reserved for the seventh and eighth school years, when simplification and rationalization can be made. In general, we teach no mathematical operation that is beyond a genuine understanding and rationalization by the pupils, and we teach this mathematics by building a structure, based on the laws of number, and by abstracting from physical models. In the later years, grades 8 and 9, we produce models in which the ordinary arithmetic and geometry do not hold up, so that the pupils will understand there is other mathematics than that which they have learned, and that this other mathematics is useful.

The geometry of grades 5 to 9 is entirely informal and intuitive and covers

the ordinary study of shape, size, and position. The one really significant change that is occurring is in grade 9 (age fifteen). Here the entire year will be devoted to developing elementary algebra from a modern point of view. The concepts, language, and symbolism of sets (Mengen, Ensembles) are introduced at the very start of the study. A variable is conceived as a symbol which may be replaced by any element (number) of its domain. We stress that we must always know the domain in which we are working. We talk of expressions, set-builders, and also refer to the roots of equations as the solution set. We are convinced that through this approach, using the five fundamental laws for a Ring (but not the word Ring), the algebra will achieve unity, clarity, meaning, and challenge to the intellect that it never had before. Our approach to function from the start will be a mapping exhibited by a set of ordered pairs of numbers, and defined by a relation that makes it single-valued. With these ideas we can introduce elementary methods of proof in algebra comparable to those heretofore reserved for geometry alone. We believe our experiment is well worth watching by all countries.

CONCLUSION

It has already been said that all reports indicate a trend toward teaching for meaning. But meaning has different connotations to the different reporters. This report closes on a note of the necessity, because of our world culture today, of teaching all our mathematics, from the very first formal lessons, through the use of thinking. This does not mean the teaching of a rigorous mathematical structure, but that all learning should be through the use of cognitive intelligence, and not other mental abilities.

More and more the only services which human beings can offer to society and which society will need will be intellectual. The age of automation which appears immediately in front of us, and the expanding application of mathematics to other areas of knowledge than physics will demand from society not only greater but more brain power. Hence it depends upon the schools of the world to develop intellectual power, not only that which occurs in the top-notch brains, but the power of each and every individual to its full extent. The power to think, to solve problems, to apply knowledge to practical situations, and to create is present in all normal persons, though of course not to the same extent. Mathematics, both as liberal education for all pupils and as special education for career people, offers a type of cognitive intellectual development necessary for mod-

ern culture. But mathematics instruction will achieve its goal only if the teaching builds a structure of knowledge through the organization of concepts and relations of number and space and facility in the use of this structure, so as to give the learner a genuine insight into what mathematics is like in the twentieth century, and what it does.

Will youth learn mathematics in this manner? They will, and furthermore, many who now desert their study of mathematics at their first opportunity will not do so under cognitive learning. They will learn, and continue their study, because children are first of all motivated by intellectual curiosity and not by use or monetary values. They will continue their study because all of us like to do that which we understand, that which challenges us, and that which offers us a reasonable chance of success.

The American-Educated Foreign Student Returns Home*

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You can't go home again," said a professor to his class of foreign students, "because you have become crosscultural people and 'home' can never be what it was when you left." This statement succinctly presents the problem of return adjustment faced by students who have studied abroad and returned home. Should American education for foreign students stop at the water's edge, or are there problems of return adjustment which foreign students face back home that should be the concern of American colleges and universities?

The general problem of return adjustment can be explained in psychological and social terms. When the foreign student crosses cultures he changes his "field." Through his experiences in a new field he becomes a changed person. It is recognized that the field is different for different individuals with varying perceptions and levels of involvement in the host culture; hence varying degrees and kinds of changes take place. When he goes home, the foreign student is

back in a field that has itself changed in varying degrees and directions. Consequently, he may be expected to have some difficulty which may or may not become serious. All these dimensions of change are variable, depending upon the individual, his background, and his educational and general sojourn experience in a foreign land. He really "can't go home again" because, as the professor said, he is different and home can never be to him what it once was.

The American-educated foreign student must face up to a social problem too. Back in his own country he is viewed by his compatriots as if he wore a conspicuous label reading MADE IN THE USA. He himself, his family, his colleagues, and his friends are aware of this "label." He returns with certain expectations, and certain responses are expected of him. From either viewpoint, challenges are experienced by the returned alumnus.

In an effort to determine what these challenges are, a study was recently completed of Teachers College alumni who had received the Doctor of Philosophy or Doctor of Education degree in the period 1946–1955. What follows is an analysis of the return adjustment prob-

The "field" concept is taken from Gestalt psychology.

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lems reported by fifty of these alumni, in answer to the question, What problems, if any, have you encountered in your country as a returned Americantrained educator.²

The problems reported were classified and placed in the seven categories given below, in descending order of frequency of mention.

 Reconstruction of personal values upon return home.

2. Bringing about changes in the home-country environment.

3. Meeting criticism of American degrees and training.

4. Accepting the standards of living back home.

5. Meeting anti-American attitudes.

6. Low salaries and lack of public or institutional funds for education.

7. Limited job opportunities and excessive work load.

These seven categories of return adjustment problems are taken up seriatim in the pages which follow.

RECONSTRUCTION OF PERSONAL VALUES

One out of four alumni reporting problems stated that he had difficulty with what might be termed the reconstruction of personal values. This is the problem of cultural readjustment, or reacculturation, of the individual who, having had a study sojourn abroad during which some, many, or all of his personal values were altered, is faced with the need to bring his altered values into harmony with indigenous culture values

² The present report is taken from a larger study of 156 foreign doctoral alumni, from 30 countries, territories, and colonial areas. Of the 81 who returned a questionnaire, 62 were back in their respective countries at the time of filling out the questionnaire. Twelve of these 62 did not have, did not recognize, or did not admit problems of return adjustment.

in his home culture without denying completely either his acquired values or the values of the home culture.

Alumni made such comments as these:

I find the social outlook of people I come into contact with quite divergent from mine. Social relationships are difficult. Personal freedom is limited. Customs and traditions are very much with us—and if one is different, then he is considered to be foreign. That social intelligence and knowledge are more important acquisitions than an academic degree is perhaps not generally acknowledged.

To be yourself you have to be free from family ties, but still the expectations of family members bother me a lot.

Adjustment to actual conditions in India. A little spoilt and much made of whilst in the States.

We still believe in the old customs, especially the separation of men and women, and so there are no girl friends because it is looked down upon. No more dates, or social gatherings of the two sexes. How can you choose your wife if there are no dates?

The divergence of life in America and in Iraq.

The problem of the reconstruction of personal values was significant for returnees because they experienced challenges to their value system while abroad. The data indicated this to be the most often mentioned problem as well as a major problem for certain individuals. Since cross-cultural education implies the "liberation" of culture-bound individuals to use their abilities for effective and constructive action in varying fields when they return home, the question arises, Should students from other lands be more directly prepared by their American colleges and universities to meet the problem of the reconstruction of personal values when they are back in their own country?

The matter of return adjustment is a complex one depending on many factors,

including the quality of the sojourn experience, the personality of the individual student, the nature of the situation which he left and to which he returns, as well as his preparation for return to his home country. The satisfactory reconstruction of personal values when he is at home again, although a difficult and multi-faceted problem, would seem to be basic to the effectiveness of the alumnus.

BRINGING ABOUT CHANGES

One out of five returned alumni reported that he had experienced problems in attempting to bring about changes in education in the home situations. Some typical comments are given below:

My recent experiences and memories were all of life overseas. To avoid referring to them was, at first, virtually impossible, to refer to them was interpreted as striving to be "one up." I had hoped to diffuse my experience in the national community, and to be an educational force in my professional group. I have found an insularity and unwillingness for my experience to be shared by persons in "power" roles.

While at Teachers College I developed the attitude and conviction that things could be changed and improved. Here I found people averse to change. Had some personal shocks.

If I say, "In the USA this is done like this..." the climate is hostile. On the other hand, if I say, "This is what modern education says..." the climate is receptive.

We have a great problem when trying to put new ideas into practice. It needs lots of tact and patience. Teachers College should emphasize more and more human relations, especially its techniques and methods. I found out that we just can't succeed only by our academic knowledge. Since we have to work with people who have a definite mental set, it is not easy at all to make them understand.

Alumni reported that they encountered in their homeland conservatism and

the reluctance of some people to accept new ideas. Such negative reactions on the part of others may have resulted from the returnees' enthusiasm in applying new ideas; it may have been taken as arrogance by their fellow countrymen. The returnees may not have been aware of the importance of reidentification with the home culture and of developing satisfactory techniques for proving their "sameness" while remaining different in some ways, thus lessening the barriers to initiating social change. Problems may also have arisen, as some comments implied, out of the attempts of alumni to apply American principles and methods directly without adapting them to the local culture. Another factor not to be overlooked may have been unrealistic anticipation, in the case of some alumni, of the difficulties to be encountered.

Some comments from alumni who reported that they *had* satisfactorily met the problems of return adjustment lend support to the above analysis.

My attention while in the USA was focused on Australia as well as the United States. I think I had quite a realistic anticipation of difficulties.

I early realized the importance of adapting, not adopting, what I learned in the States.

The main reason [for successful adjustment] is that I adapt from what I learned whatever I think is practical and applicable in our own situation. I do not copy anything from the United States just because I know it. However, I must say that I am very fortunate to work in a really democratic institution. Everyone feels free to make suggestions for improvement in life and in our work. If the suggestion is a better one, it is always taken. So I have no difficulty.

The last comment suggests that the strategic placement of the returnee is an

important factor in his success in bring-

ing about educational change.

Another important aspect of the role of alumni as social innovators is their understanding and use of the communication process as it operates in the social system at home. Too often failure in bringing about desirable social change has been caused by failure of the catalyst to grasp the importance of relationships that exist in a particular community and to work within this established framework.3 An effective social innovator must understand not only the process of communication but also the ways in which the social system as well as individuals operates in achieving desired and desirable goals.

Analysis of the comments made by alumni leads to the conclusion that at least 20 per cent of these former students would have benefited if they had paid more attention during their sojourn abroad to a study of the methods of bringing about social change, or, more generally, a study of the process of social change.

CRITICISM OF AMERICAN DEGREES AND TRAINING

One out of five returned alumni who mentioned problems of readjustment stated that his American degree and training were considered below European degrees and training by some of his contemporaries. This attitude was encountered by alumni in Nigeria and Sierra Leone, Australia, Burma, Egypt, Greece, Iraq, India, and Pakistan. The following comments are representative.

In some quarters American education is regarded as superficial, and persons with equivalent qualifications from British universities are given preference.

⁸ Morris E. Opler, Social Aspects of Technical Assistance in Operation (Paris, Unesco, 1954), pp. 42-63.

As a returned student one has to prove to fellow colleagues that an American education enables a person to offer a practical solution to the educational needs which presently exist in my country. The general consensus in Iraq is that British education is deeper, more disciplined, and more thorough than American. The comparisons made between American and British education are unfavorable to the American graduate.

In a country where there is a political influence from another great power there is a pressure from that power to discredit American-educated persons and give more weight to degrees received from the country exerting the influence.

This unfavorable situation was reported by alumni in countries of the British Commonwealth and in former and present British colonies. It was also reported by alumni in countries where British education has had a longer tradition than American education, or where Great Britain and the United States would seem to be competing for the ideological and political support of the country as evidenced by the last quotation.

It was also brought out by some alumni that, because of the nature of the educational system in many lands, the Ministry of Education is a political office. This fact affected the status of American degrees in some countries. In this connection, one alumnus said:

When the administration in the office of the Ministry of Education [is] in the hands of those people who studied in the USA, then all graduates from the American universities become preferable; and, on the contrary, when the administration [is] in the hands of those who graduated from the British universities, then all the graduates from the British universities become preferable. Thus, one can say that there is a clash as well as a sort of envy and jealousy among those who consider themselves among the best educated people in the country.

Other alumni reported that the holders of American degrees come into conflict with graduates from European universities generally. This conflict seemed to be more with individual colleagues than with either covert or overt policy.

Many of my colleagues are graduates from European universities. They are inclined, in general, not to appreciate the American philosophy of education as it should be.

My American education is rejected by the German-, French-, [and] British-trained educators.

The problem of envy for being more up to date and far more advanced in knowledge than those colleagues coming from Europe.

European education generally, and British education in particular, is of course several centuries older than Amercan education. It is understandable that leaders abroad who are European trained and who know little or nothing about American education would tend to consider superior that with which they are familiar. Such an attitude may also be viewed as a protective device utilized by these persons to maintain their own status

A basic factor that is ignored when comparisons between the educational systems of various countries are made is that the objectives of education in these countries are different. European higher education has been highly selective, directed toward the development of an intellectual elite; American higher education has been open to all who can benefit. When these differing objectives are not considered it is obvious that American education falls below European in certain respects, and vice versa. Another factor influencing the attitude of some countries toward American degrees is the confusing picture of American higher education that is often found abroad. Because only a few American universities are known abroad and because of the wide range in their quality, it would seem almost impossible for uninformed individuals to evaluate American study and, therefore, unfair to belittle American degrees.

That Teachers College, Columbia University, is well known abroad and is considered an outstanding institution by many is reflected in the fact that one-fourth of the students from other lands studying in the United States in the professional field of Education have, in recent years, chosen to become students at Teacher College. However, when alumni return home, their education at Teachers College tends to be generally viewed by others as "American education" and as such is subjected to adverse criticism.

None of the respondents in Japan, Israel, the Netherlands, the Philippines, Thailand, and Puerto Rico reported problems relative to the status of American degrees.

ACCEPTING STANDARDS OF LIVING BACK HOME

One out of eight returned alumni had found it difficult to reconcile himself to the lower standard of living in his home country after his stay in the United States. Of the respondents indicating difficulty in making this adjustment only three more recently returned alumni were unreconciled at the time of filling out the questionnaire. About half of those who said that they had finally learned to accept conditions in their homeland spoke in terms of resignation to the situation. A typical comment was:

No heat in house or school in winter. Food so different. Transportation so inadequate. But I have overcome all these diffi-

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culties now. I catch cold like everybody else; eat rice and fish.

The remaining half of those who eventually adjusted to the standards of living back home reported their reaction in terms of motivation for improvement of conditions.

When I returned, I noticed the contrast clearly and this made me complain. However, I soon realized that it will take time to develop our new country, and I have been able to readjust to the traditions of my country. I plan to live the rest of my life here and I must contribute to its development.

I think after a while we begin to realize that we have to be realistic and start from where we are and from what we are, not from what we do not have. We begin to sympathize with the people and we feel that it is our responsibility to help, not to feel resentful.

MEETING ANTI-AMERICAN ATTITUDES

One out of ten returned alumni reported that he encountered prejudice and hostility to anything American. These comments were made by alumni in Australia, Egypt, Japan, and India. The comments made indicated that the reasons for the negative attitudes toward the United States are many and complex, for example, stereotypes developed by the movies and cheap publications, contact with a few unrepresentative Americans abroad, experiences with the American military abroad, and the material wealth of the United States. The reason most frequently given was the controversial role of the United States in international relations

LOW SALARIES AND LACK OF FUNDS

One out of ten returned alumni reported that he was dissatisfied with his situation back home because of low salary. Whether this dissatisfaction resulted from comparing local salary scales with American salary scales or merely represented the alumnus' personal situation relative to others in the local situation could not be determined from the comments made by respondents. The fact that it was mentioned suggests that alumni had expectations of higher salaries after their American education and that these expectations were not realized. The lack of public or institutional funds for the accomplishment of desired objectives in education was also reported.

JOB OPPORTUNITIES AND WORK LOAD

One out of twelve alumni reported dissatisfaction with his professional position. An alumnus said that those entrenched in responsible positions "close ranks to keep a newcomer down or out." Two said that they were given excessive work loads. One failed to secure a better position which he had expected upon return, and one reported that he had difficulty in securing a position in his particular field because "specialized jobs are too few."

CONCLUSIONS AND IMPLICATIONS

The findings discussed here should be tempered with other findings growing out of the total study of foreign doctoral alumni, which indicate that the vast majority (96 per cent) feel that their American education has contributed in a variety of important ways to their professional, social, and personal development. Space does not permit elaboration of these data here. The findings discussed in the present report, however, lead to the conclusion that an important objective of cross-cultural education, namely, preparation for return adjustment, was

not attained by a large number of students from other lands. The question raised by these findings is, Should preparation for return be a part of the educational "content" of the study sojourn of students from other lands? To state, as many do, that "education" is the primary purpose of exchange-of-persons programs is to beg the more important question regarding the kind, quality, and scope of the education that is offered.

Of the seven categories of return adjustment problems reported by alumni, two in particular appear to be basic to the successful re-acculturation of the returnee and to his making effective contributions to his society: (1) the reconstruction of personal values upon return, and (2) bringing about changes in the home-country environment. The other problems mentioned, although immediately important to the returnee, can be said to depend in large measure for their amelioration or eventual solution upon what the alumnus does in these two aforementioned areas.

The findings reported here suggest that during the period of sojourn abroad consideration should be given (particularly by advanced graduate students who are likely to return to key positions in the home country) to study of the psychological and social problems involved in cross-cultural experience, and to study of the process of social change and the methods and techniques of bringing about desired and desirable change. In this connection it should be pointed out that the purpose of cross-cultural education should not be "to produce social revolutionaries discontented with their own culture, or resentful critics of the societies which educated them."4 Rather it should produce social innovators with strengthened and broadened loyalties to their homeland-people who are not only constructive critics but constructive agents for change as well. A specialist in cross-cultural education has stated:

. . . appreciable results in . . . any respect that transcends the lives of the exchanged individuals depend on a "multiplier effect." That is, since the number of persons exchanged in any program is inherently a minute proportion of the national populations, a crucial ingredient of a successful program is its potentiality for catalyzing processes that ramify beyond the persons directly included.5

The questions concerning the preparation of alumni for return adjustment are more immediately pertinent for alumni from the "technologically underdeveloped" countries. The majority of Teachers College students from other lands as well as the majority of foreign students in the United States as a whole come from countries which are attempting to hurdle the centuries. A well-known anthropologist has stated:

... The need now is to move away to new knowledge and skills, to a new place in a new social order. Education is now not for the maintenance of the old, but for change.6

The challenges which alumni face in their situations back home become, in light of the findings reported here, challenges also to the American institutions which educate them.

4 Robert King Hall, "The Role of Teachers College in International Education," Teachers College Record, Vol. 56, No. 5, 1955, p. 266.

5 M. Brewster Smith, "The Future of Inter-

national Exchange Programs," Teachers College Record, Vol. 57, No. 5, 1956, p. 289.

6 Margaret Mead (Ed.), Cultural Patterns and
Technical Change (Paris, Unesco, 1953), p. 269.

Progressive Education and American Progressivism: Margaret Naumburg*

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ROGRESSIVE education originated as a revolt against (as Edward C. Lindeman phrased it) "the deadly, stereotyped, ritualistic and doctrinaire form of education which prevailed everywhere in America" during the second half of the nineteenth century. There was no headquarters for the revolt, though after 1919 the Progressive Education Association acted as a clearing house for disseminating information about it. Nor was there a chief of staff. John Dewey disclaimed paternity of progressive education, not because it was unpopular but because he knew how much had been done by such pioneer fighters as Colonel Francis W. Parker. Said Dewey:

Colonel Francis W. Parker, more nearly than any other one person, was the father of the progressive education movement. . . . He engaged in aggressive warfare against the burden of ready-made desiccated subject matter formulated and arranged from the adult point of view—in other words, against the stock in trade of the conventional curriculum. He pleaded for subject matter nearer to the experience and life of the pupils. He strove to throw off the yoke of fixed and uniform disciplinary measures.¹

Colonel Parker fought his battle in Massachusetts and Illinois. Felix Adler and Caroline Pratt worked in New York. Marietta Johnson was in Fairhope, Alabama, and at other spots other crusaders struck out, intent on "progress" in educating. No one was "captain" in those early days, from 1875 to 1914. And not even in 1919, when the Progressive Education Association opened its first office, was John Dewey or anyone else titular head of the progressive movement in education. Stanwood Cobb, first executive secretary of the Progressive Education Association, makes this point most emphatically. Wrote Mr. Cobb of the early history of the movement:

I should like to emphasize particularly that this Progressive Movement in various Experimental Schools throughout the country was spontaneous and flowed from widely different sources, totally unconnected each from each. It cannot be ascribed to any one educator.²

The revolt against mediocrity had no leader, but it was not a lone revolt of

New Schools?" The New Republic, 63:204, July 9, 1930.

^{*} This is the final article in a series of three by Professor Beck published in The Record. The first article discussed the role of Felix Adler in the Progressive Education Movement, the second that of Caroline Pratt.

¹ John Dewey, "How Much Freedom in the

² Stanwood Cobb, "The Early History of the Progressive Education Association," p. 1 (Unpublished manuscript). Mr. Cobb was interviewed by the writer in connection with the early history of the Progressive Education Association on February 7 and 8, 1941, at the Chevy Chase Country Day School, Washington, D. C.

educationists against a single institution. All along the line American civilization was in cultural upheaval. Edgar Lee Masters led off by attacking American literature as romantic trifling. Sinclair Lewis and many others lent immediate support. Then, in 1912, Poetry made its appearance, and native poesy showed itself intellectually beyond Longfellow. In his Little Theatre, Maurice Browne produced William Butler Yeats's "On Baile's Strand" in 1911, opening the way for a revamping of American drama. The Impressionists, Expressionists, Post-Impressionists, Cubists, and other art groups had their debut in America under the sponsorship of a remarkable photographerartist, Alfred Steiglitz. The Goliath of calendar art had met its David.

These assaults on cultural mediocrity, joined with the criticisms of the poor showing being made by the schools, were complemented by "muckrakers" thrusting at big business, big labor, political corruption, and all forms of social evil. It was an apt phrase, muckrakers, to describe Henry Demarest Lloyd,³ Lincoln Steffens,⁴ Ray Stannard Baker,⁵ and such

The term "muckraker" was coined by President Theodore Roosevelt at a Washington Gridiron Club dinner on March 17, 1906. David Graham Phillips, well known as a crusader against social and economic evils, had just taken Senator Chauncey Depew to task in a singularly harsh fashion. With Pilgrim's Progress in mind—remembering the sad character who stood always with a hoe raking the muck and never lifting his eyes to the light—Roosevelt coined the label "muckraker." But the business of muckraking had gone on since 1894, when Henry Demarest Lloyd, a Chicago newspaper man, fathered an exposé of the Standard Oil Company—Wealth Against Commonwealth.

⁴ Steffens' Shame of the Cities (1904) revealed the results of two years spent in exploring the venality of politics in Minneapolis, Cincinnati, Chicago, Philadelphia, and New York.

⁵ Baker wrote about San Francisco, the graft

baker wrote about San Francisco, the graft within labor organizations, and the hold of labor bosses and big business on the city's consumers. This he followed with an investigation of the

other hard-hitting writers as Thomas W. Lawson, Charles Edward Russell, Samuel Hopkins Adams, Burton J. Hendricks, David Graham Phillips, Edward E. Bok, and Mark Sullivan. The names are paraded simply to point up the fact that muckraking was no small-scale enterprise.

By 1910, however, muckraking was on the decline; it had done its work. The Hepburn Act, the Mann-Elkins Act, controlling common carriers, had been enacted partly because of what had been said about railroad rebates and the watered stock of railroad companies. David Graham Phillips may have helped in obtaining the direct election of Senators. Upton Sinclair's *The Jungle* has been credited with prompting President Theodore Roosevelt to appoint an investigating committee charged with studying the food-packing industry. Subsequently the Pure Food and Drug Act was enacted

In education, in the arts, in cleaning up slums, politics, and labor and business practices "progress" was effected. Reformers were hopeful and their hope lasted through World War I, which many felt would be a war to end war and political tyranny. With such optimism rampant, audaciously radical schools representing in their educational philosophies the idealism of all American progressivism, were to be expected.

The idealism of the day leaned in a political direction; it was believed that Americans were capable of running their affairs with justice and honesty. Each of the muckrakers sought a cleaning up of social conditions that would restore to Americans a decent environment in which their native instinct for good would lead to the building of a progressive civilization. All this idealism was appealing to a

Armour and Swift Beef Trust and of railroad rebates to industries.

social conscience. Felix Adler and his Ethical Culture School were almost artifacts of it. He told the School's backers,

The ideal of the school is not the adaptation of the individual to the existing social environment; it is the development of persons who will be competent to change their environment to greater conformity with moral ideas; that is, to put it boldly, to train reformers.⁶

With the decline of muckraking after 1910, the urgent plea for social reform was replaced by the efforts of writers, dramatists, painters, and poets whose goal was to increase respect for and encourage creative self-expression. So special a drive did not displace overnight the efforts of those out to eradicate social evils, but the artists fought hard and the social liberals among progressives tended to rest.

An educator of unusual verve and imagination represents what happened in progressive education just before World War I and after the Armistice. Margaret Naumburg struck out unreservedly for creative self-expression.

H

A career was not clearly blocked out in Margaret Naumburg's mind when she graduated from Columbia University in 1910, but she went from college bent on social reform. She had been president of the Socialist Club on campus, and her major study at Columbia had been done with John Dewey, in those days unrivaled as a philosopher of American progressivism.

In order to bolster the knowledge which she would put at the service of reform, Miss Naumburg went to England to study with Sidney and Beatrice Webb

⁶ Mabel R. Goodlander, *The First Sixty Years* (New York: The Ethical Culture Society, 1938, Foreword), p. iii.

⁷ From an interview with Miss Naumburg, March 15, 1941, in New York City. at the London School of Economics. Under the Webbs' tutelage she had an opportunity to gain better than a bird's-eye view of social conditions and labor problems, and was set to studying labor conditions in the moving picture industry, at the time centered in London.

Economic reform in the Socialist manner apparently lost its charm for Miss Naumburg and left her a would-be reformer without a cause. Into the spiritual vacuum moved Dr. Maria Montessori, who, between 1910 and 1914, was the best-known educational reformer in Europe and the United States. Miss Naumburg journeyed to Italy, there to observe the new work of Dr. Montessori in her Casa dei Bambini. The two women did not prove congenial and Miss Naumburg returned to the United States and to her one attempt, at Lillian Wald's Henry Street Settlement, at managing a kindergarten organized in accordance with Montessori principles.

One remembers the Montessori method as helping children to learn their three R's through manipulation of "didactic materials"—blocks of assorted shapes, beads of varied colors, and outlines of letters. To Margaret Naumburg the materials were unimaginative and the prescribed method of their manipulation restricted the *creative* activities of the children.

III

It was 1915, war had broken out in Europe when Miss Naumburg made the decision to open a school of her own, to be named the Children's School (now the Walden School.) A summer spent studying with that impressive and original radical in progressive education, Marietta Johnson, was enough to give Miss Naumburg heart. She was certain that it would be possible to conduct a school in which

children would add to their intellectual and *emotional* power, and she was bent on helping the youngsters to become responsible thinkers and physically sturdy rather than emotionally dependent individuals.

The concept of giving the emotional development of children priority in the educational objectives of a school was entirely new in 1915. Today it is taken for granted by the educator, who studies child and adolescent development. Some forty-five years ago in this country-or anywhere else in the world—this was not so. To think in those terms in 1915 was to be at the cutting-edge of reform. And Miss Naumburg was so in her rebuke of standard education as neglectful of emotional development. Not that it could have been otherwise in the schools of 1915. The processes whereby children mature into personalities was altogether a mystery. Freud had been made available to sophisticated American readers only five years earlier, in 1910. Miss Naumburg had the advantage of knowing Freudian teaching but happened to be more attracted to that of the Swiss psychiatrist and psychologist, Carl Gustav Jung. Indeed, she was analyzed by a Jungian practitioner, Dr. Beatrice Hinkle. It may be presumed that through the analysis, Miss Naumburg hoped for "sufficient" freedom from inhibiting ego-defenses and restraints on the expression of her feelings. The freedom, she trusted, would be enough to prevent her from dominating the children. The act, however one may estimate its practicality, demanded unusual courage and imagination at the time Miss Naumburg undertook analysis. True it was not done at the opening of her school, but it was undergone years before psychoanalysts became widely ac-

The search for teaching conducive to

an integrated personality seemed to lead Miss Naumburg and her staff-all of whom she urged to be psychoanalyzedto emphasis on the arts in the Children's School course of study. When in later years the Bureau of Educational Experiments in New York-an outgrowth of the studies on teaching conducted at Caroline Pratt's Play School-asked selected pioneers in progressive education to record the ideas that had been all-important to them at the time when first they set foot on the progressive trail, Miss Naumburg contributed. Writing of the art work in the early days of the Children's School, she pointed up the role of the art program aimed at helping to build socially and emotionally mature children. She wrote:

These early artistic enterprises serve to bring into conscious life the buried material of the child's emotional problems. Gradually his energies are transformed from unconscious, ego-centric attachments, to the wider intercourse of social life. This, indeed, is the function of all art; self-expression in forms that are of social and communicable value.⁸

It was not in dramatics but in painting that the Children's School most adequately represented the importance of art to progressive education in 1914-1930. Miss Naumburg's sister, Mrs. Florence Cane, directed the painting and was directed in her concept of what the art was to accomplish by her reading of Jung and her experience of psychoanalysis by Dr. Beatrice Hinkle. Under Mrs. Cane's guidance the children painted what they felt impelled to paint. Their pictures re-

s Margaret Naumburg, "A Direct Method of Education," in Schools Grow, edited by Marjorie Page Schauffler (New York: Bureau of Educational Experiments), unpublished and un-

dated, p. 2.

⁹ From an interview with Mrs. Cane in New York City, February 2, 1941.

flected or expressed their feelings and attitudes toward the environment. At other times the representations were of dreams, of moods.

Though the record is not clear, Miss Naumburg seems to have become less and less enamored of "forms that are of social and communicable value." Individuality and self-expression push to first place among things to be sought through education and ". . . from our point of view there must be a recognition of the subjective inner life, of feeling as coexistent with and coessential to our life action. . ."10

IV

There was no unsupportable inconsistency between Miss Naumburg's attachment of importance to "forms that are of social and communicable value" and "a recognition of the subjective inner life." She was sure that there would be nothing of value to communicate, and no action worth taking, unless the inner resources of feeling and sensibility were rich. Somehow the progressive education movement that she gradually came to know, with the exception of Caroline Pratt's Play School, revealed itself to Miss Naumburg as deficient in considered appreciation of these inner resources, the "subjective inner life."

Margaret Naumburg became the spokesman for a belief that education should lead to ever more power in the individual's creative self-expression. Circumstances made this role possible. Her friends increasingly had come from the arts. She married the writer Waldo Frank, a marriage symbolic of acceptance into her life of the progressive revolt in the arts. The social reform element of pro-

¹⁰ Margaret Naumburg, The Child and the World (New York: Harcourt, Brace and Company, 1928), p. 115.

gressivism that had been generated by study with John Dewey and the Webbs and by presidency of the Socialist Club at Columbia, yielded place sometime during the 20's to that other dimension of progressive reform—the esthetic revolt of the American artist.

To teach in the Children's School came men close to the progressive protest of the arts. Lewis Mumford for a time taught English there. Hendrik Willem Van Loon made a start in his career teaching history at the Children's School. Ernest Bloch instructed in music. The parallel with the Play School of Caroline Pratt downtown in Greenwich Village, where William Zorach taught painting, need but be indicated. These were the only two schools of the day whose directors were intimately acquainted with the progressive ferment in the arts. Of the two, Margaret Naumburg had the more intimate knowledge.

The objective of education Miss Naumburg sought in the name of progressivism in the arts was vision. This end in view is nowhere better phrased than by her husband, Waldo Frank, then editor of the new experimental journal *The Seven Arts*. Writing of what Americans should strive to reach, Frank spelled out the meaning of "vision." He was defining, incidentally, the goal of the Children's Company of the contract of the contract

dren's School in the 1920's.

What we require is vision. Man is the culmination of the blind life that spews him up, only when he has *felt* that life, when it is fused into his consciousness. His power of vision is his power to experience; to make the boundaries of existence the boundaries of his spirit. Only in so far as he feels infinitude within himself is he a master. And all the elements of nature, all the materials of his own hand are hard things indeed to make his own. Intuitively, man has felt this issue and realized that he must be forever recreating life into a form that he can grasp, if he would not be submerged. And one of

the ways of his effort is religion; and the other way is art. By art, he lifts up the more hidden bases of existence and makes them his experience; he achieves that sense of unity and *at-homeness* with an exterior world which saves him from becoming a mere pathetic feature of it.¹¹

V

When Waldo Frank wrote of man that "by art he lifts up the more hidden bases of existence and makes them his experience," he told of an art that was not simply either impressionistic (reporting what the artist experiences of the environment) or expressionistic (reporting a mood or feeling). In terms of the chronology of modern art it was a message of postimpressionism in which thoughtful, interpretive expression is offered. It was not only in painting that post-impressionism had a life. It lived in the belles lettres too, and there Waldo Frank experienced it with his wife. And what did it call for in education? For classroom freedom and creative self-expression.

Waldo Frank and Margaret Naumburg were simply speaking to educators of a spirit in poetry, in prose after 1920. In 1920 T. S. Eliot published The Sacred Wood, a volume of essays that became the yardstick for literary criticism to the younger generation of American poets. In the same year Eliot brought out his Poems and shortly afterwards The Waste Land, dedicated to Ezra Pound, certainly a believer in self-expression. Literally a flood of American poetry followed. There were the journals Poetry, The Little Review, The Seven Arts, and then a host of ambitious minor periodicals some short-lived, others more durable.

Miss Naumburg could be counted on to respond to this virile creativity. Response came from other school people.

Seven Arts, 1:295-96, January, 1917.

Between 1920 and 1925, Hughes Mearns, teaching in Lincoln School in New York, sponsored what he frankly called the "creative spirit." The poetry and prose of children were his vineyard, and two books tell of his venture. 12

Those who knew Mearns at Lincoln School or even read his books and essays heard from him repeatedly that creative self-expression could not be ordered, it could be but permitted. Though he was plain-spoken on the point of not abrogating responsibility as a teacher in permitting the free expression of students,13 critics of education for (and in) self-expression saw little room for the teacher. Nor did they when reviewing the pedagogical thought of Satis N. Coleman in children's music; Ruth Doing and Agnes and Lucille March in dance; or Marie Mountesier in literature. They were fearful that the curriculum dominated by the arts would be unplanned and simply esthetic froth. Heightening their concern was front-page publicity accorded Franz Cizek, Viennese artist, who exhibited the work of his young students at the Metro-

12 Hughes Mearns, Creative Youth (New York: Doubleday, Page and Company, 1925) and Creative Power (Doubleday, Doran and Company, Inc., 1929).

13 "Poetry," wrote Mearns, "an outward expression of instinctive insight, must be summoned from the vast deep of our mysterious selves. Therefore, it can only be permitted." This statement out of Creative Youth (p. 28) was typical of what alarmed. Nor did it reduce the anxiety of critics of progressive education to read: "However, we are not so gaily giving up our function as teachers. Permitting these native impulses to play without shame or fear of impertinence is in itself an art . . . our sincere approval when the inner spirit speaks its true and individual note, that is the finest thing we teachers may offer. For, we have found out, the poet does not always know, until he has been told many times, which is his real self speaking and which is that other superimposed self, the mimic and poseur, that crow with the peacock's feather." (Creative Youth, p. 10.)

politan Museum of Art in New York in 1924. Visitors seemed to have been impressed with the quality of the paintings and sculpture, and inevitably Cizek was asked for his mode of teaching. He answered simply,

Where others put the lid on, I take it off. When a child comes . . . I don't tell him what to do. I bring him into the storeroom and let him rummage through all my treasures. He finds paints and brushes and chalks and canvas. He finds wood for carving and sawing, and clay for modeling and colored paper to cut out. He sees other children working with them, and he soon finds out what to do and he does it.¹⁴

Cizek's statement roused a storm of controversy. The negative comment was summed in that famous cartoon showing a teacher circled by bored youngsters whose spokesman asks, "Teacher, do we have to do what we want to do today?"

All during the 1920's Miss Naumburg and a handful of others, in the face of constant criticism that their philosophy of education left the students adrift in an ocean of freedom, held firmly to their belief that creative self-expression was the power most regrettably missing from the American scene. Like Waldo Frank and other artists, Miss Naumburg felt that Americans were losing their individuality of expression and, as a result, were in danger of losing discernibly individual personalities.

VI

Recalling the degree of emphasis in classic progressivism on brotherhood and the gospel of dedication to human welfare, the individualism approved by Miss Naumburg marked a sharp deviation from the progressive norm. Perhaps "creative self-expression," or individualism in

14 "News and Comments," Progressive Education, 1:36, April, 1924. See also Franz Cizek, "The Child as Artist," Independent, 113:541-44, December 20, 1929.

esthetic response, could have been kept in balance with the idea of social service. It was not. The progressives in education became hopelessly split in the late 1920's. The division came over the issue of individualism and freedom in education. On one side was John Dewey, standing for the tradition of progressive social reform. Critical of Dewey were the allies of Margaret Naumburg, who felt that there was a threat of "herd psychology" in Dewey's emphasis on the "social." Miss Naumburg had not turned against the traditional progressivism in her background. Her argument for the supremacy of individuality had no trace of reactionary social philosophy. The objection she registered was simply a strong dislike of Dewey's emphasis upon the social obligations of men in society and the need to understand the vastly complex industrial society rather than their obligation to become individuals significant because they had acquired rich inner resources.

Naumburg took the offensive in her 1928 publication The Child and the World. There she quoted from Dewey's Democracy and Education. Selecting Dewey's criticism of the doctrine of self-sufficiency she pointed it out as typical of the thinking that submerged the individual in socialization. Dewey had written:

From a social standpoint, dependence denotes a power rather than a weakness; it involves interdependence. There is always a danger that increased personal independence will decrease the social capacity of an individual. In making him more self-reliant, it may make him more self-sufficient; it may lead to aloofness and indifference. It often makes an individual so insensitive in his relations to others as to develop an illusion of insanity which is responsible for a large part of the remediable suffering of the world.15

¹⁵ John Dewey, *Democracy and Education* (New York: The Macmillan Company, 1916), p. 52.

Naumburg's response was pointed: "Much of the present social philosophy that wishes to sacrifice the individual to the good of the group is nothing but instinctive herd psychology, translated into modern terms."16

One remembers that Margaret Naumburg had studied with Dewey in her undergraduate days. In fact she had seen some unpublished notebooks describing the curriculum of the Laboratory School Dewey directed while he was Chairman of the Department of Philosophy, Psychology, and Pedagogy at the University of Chicago at the turn of the century. From what she read in those notebooks, this former pupil was convinced that Dewey lacked appreciation for the need of creative work by individuals thinking alone.

I was surprised to find how regularly all the schemes of making and doing were set beforehand. For instance, if the processes of preparing wool was the topic, every child concluded his work with either the making of a small rug or the weaving of a large one in collaboration with his class. And if the central topic in a young class was the life of the cave-dwellers, then at a certain point in the activities all the art work consisted of the elaboration of the life of primitive man.

The work was arranged in fresh terms around genuine interest and activities that cut across the former theoretical divisions of subject matter. But the making and doing of things was always subordinated to a social plan, not related to the individual capacities and tastes of the children. This was striking in the records of creative work. For apparently the art of any group was limited to a suggested social subject.17

Miss Naumburg would not accept what she believed to be Dewey's partiality to a "social plan" and "social subject." This

16 Naumburg, The Child and the World, p. 50. 17 *lbid.*, p. 111.

was too much subordination of the personal, while

... from our point of view there must be a recognition of the subjective inner life, of feeling as coexistent with and coessential to our life of action, before education can orient individual children to a fundamental social adaptation.

But I feel that our entire generation is obsessed with the urge to socialize the world by compulsion-an excessive pressure from without, because we lack faith of inner purpose. In the schools, too, I find that the first concern is not with human beings, but with producing a particular type of society. This mistaken emphasis springs, as I see it, from a diminution of proportionate weight on the inner, the spiritual, value of each separate life, and an exaggeration of the value of the external products of herd existence.18

The gauntlet was thrown. It remained to be seen whether Dewey would pick it up, signaling internecine warfare within the ranks of progressive education. He did. First in several essays,19 and then in an article,20 Dewey returned the fire, accusing some of the "new schools" of anarchic individualism.

The direction that this countercriticism would take was manifest in the 1929 essays. Dewey passed judgment on those who encouraged children to express themselves freely without adult imposition (what Naumburg had referred to as the "social plan" when commenting on the notebook descriptions of the curriculum of Dewey's Chicago Laboratory School).

18 Ibia., p. 115.
19 John Dewey, "Affective Thought in Logic and Painting," "Individuality and Experience," "Experience, Nature and Art," in Art and Education, edited by John Dewey, Albert C. Barnes, and others (Philadelphia: The Barnes Founda-

tion Press, 1929), p. 11.
20 John Dewey, "How Much Freedom in the
New Schools?" The New Republic, 63:172-76,

July 9, 1930.

false position. . . . There is a tendency in so-called advanced schools of educational thought (by no means limited to art classes like those of Cizek) to say, in effect, let us surround pupils with certain tools, appliances, . . and then let pupils respond to these things according to their own desires. Above all let us not suggest to them what they shall do, for that is an unwarranted trespass upon their sacred intellectual individuality since the essence of such individuality is to set up ends and aims. . . . Now such a method is really stupid.²¹

VII

The year after Dewey's essays on art had appeared in Art and Education a memorable series of six articles on progressive education appeared in The New Republic. Titled "The New Education Ten Years After," the collection appraised progressive education a full decade after the founding of the Progressive Education Association. Although the progressive education movement antedated the founding of the Progressive Education Association, the editors of The New Republic treated the series as recognition of the tenth anniversary of progressive education. Because of the bitter debates over freedom and individuality during the 1920's, the phrase "progressive education" had become controversial. To prevent readers from approaching the series with prejudgment, the articles were grouped under the banner, not of progressive education, but "the New Education," which was somewhat more neu-

The series concentrated on the debate of one issue: the type and degree of freedom that ought to characterize education. Of the six essays, two are of commanding interest and almost diametrically opposed in their conclusions. Margaret

²¹ John Dewey, "Individuality and Experience," Art and Education, p. 180.

Naumburg contributed one, "The Crux of Progressive Education," and John Dewey the other, "How Much Freedom in the New Schools?" In these two articles the authors bare the two emphases of progressive education during the 1920's. Dewey declares again the social purpose of the school. Naumburg makes her final plea for individuality, a "crystallized individualism," an "integrated and independent 'I' psychology."

Naumburg's essay goes directly to John Dewey's social philosophy, accepting as it does the concept of individuals developing within society through a process of social interaction and communication. In her judgment, by 1930 that social philosophy had become outmoded, though once it was needed.

America's coming-of-age has had to be achieved through the growth of group consciousness. A series of interlocking social, civic, business and cultural organizations has sustained the practical needs and spiritual hunger of widespread millions. 22 Just because America is so group-minded, any questioning as to the positive value of this constant and limited herd life is sure to be a source of irritation. We are still so imbued with a purely group psychology, so completely identified with mass action and reaction, that it is not possible even for our this is. 23

John Dewey, who had become a leader of American philosophy and civilization, had overlooked this "herd" spirit, his former student charged. Indeed, she found Dewey's social philosophy a sanction for the rule of the herd. Note, she suggested, the manner in which Dewey appraises genuine individualism.

²² The reference here is to the myriad fraternal organizations that sprang up after the Civil War. The two best known before 1900 were The Grange and The Knights of Labor.

²³ Marrow f Pro-

²³ Margaret Naumburg, "The Crux of Progressive Education," The New Republic, 63:145, June 25, 1030.

For Dr. Dewey, individualism can never be that condition of matured and separate growth still discoverable in the old culture of Europe; nor can it apparently be expressed for him in the germinating strength of those who spend their lives in such seclusion as brings forth art and science for the benefit of society as well as of themselves. For to him the individualism of the past is inevitably tied to the laissez-faire economics of Big Business; and this he dismisses briefly as unproductive to the group of our future social order.²⁴

A future social order in which individualism arises only as a condition of integration within society was anathema to Margaret Naumburg. Twenty-five years before there was talk of the "mass man," the "other-directed man," and the "lonely crowd" she turned on Dewey's view that "assured and integrated individuality is the product of social relationships and publicly acknowledged functions."

Here Dr. Dewey is being the American of Americans. Is this the best that the future holds for more complete and integrated individualism: A dull and gloomy picture, this technological utopia, to those of us who still hope for a richer and socially balanced individualism—the flowering of a more equitable society. In this new world, if man is longer pitted against man in the purely economic struggle for existence, man will vie with man to create and construct for others as well as himself. A more integrated society would give fuller life to its people and more highly integrated individuals would in return add strength and power to their own social group. This process of correlating the individual and society would not remain, as in the past, one of conflict and opposition, but would be an opportunity for mutual sustenance. To reduce the power of centered individual development is ultimately to reduce the strength of society. For it is precisely these cross currents of force, derived from the impacts and interactions of groups and individuals, that bring forth visions and build new worlds for the future.25

Dewey's article on progressive education followed hard on Miss Naumburg's. Two weeks after hers appeared, *The New Republic* ran the final essay in the series—"How Much Freedom in the New Schools?" by John Dewey.

In his introductory paragraphs Dewey expressed difficulty in finding a single rubric to use in describing the educational philosophy of the "new schools."

Often they express discontent with traditional education or locally available schools without embodying any well thought-out policies and aims. They are symptoms of reaction against formalism and mass regimentation; they are manifestations of a desire for an education at once freer and richer. In extreme cases they represent enthusiasm much more than understanding.²⁶

He was able to define their "common creed."

Their common creed is the belief in freedom, in esthetic enjoyment and artistic expression, in opportunity for individual development, and in learning through activity rather than by passive absorption.²⁷

It has been assumed by those who look upon Dewey as the father of progressive education that in his confidence in learning through activity "rather than by passive absorption," Dewey aligned himself with a child-centered school rather than a subject-centered school. Those who hold this view move on to the further conclusion that progressive education uniformly has sided with Dewey in rejecting the subject-centered school and, in the same breath, subject matter.

The judgment is wide of the mark. The first of the two major criticisms of the progressive schools of the 1920's which Dewey wrote into his article was that they neglected carefully planned subject matter. He agreed that there was

²⁴ *Ibid.*, p. 146. ²⁵ *Loc. cit.*

²⁶ John Dewey, "How Much Freedom in the New Schools?" The New Republic, 63:204, July 9, 1930.

²⁷ Loc. cit.

reason for the reaction against "dead, formal and external studies."

But rebellion against formal studies and lessons can be effectively completed only through the development of a new subject matter, as well organized as was the old—indeed, better organized in any vital sense of the word organization—but having an intimate and developing relation to the experience of those in school. The relative failure to accomplish this result indicates the one-sidedness of the idea of the child-centered school.²⁸

Having strongly emphasized the role of both subject matter and teaching—rather than simple "freedom to learn"—Dewey turned to Miss Naumburg and the postulate of one wing of progressive education that education for creative self-expression is at least as important as any social commitment such as the classic progressive position of Felix Adler and Dewey himself.

No one can justly decry the value of any education which supplies additions to the resources of the inner life of pupils. But surely the problem of progressive education demands that this result be not effected in such a way as to ignore or obscure preparation for the social realities—including the evils—of industrial and political civilization.

. . . Upon the whole, progressive schools ²⁸ lbid., p. 205.

have been most successful in furthering "creativeness" in the arts—in music, drawing and picture making, dramatics and literary composition, including poetry. This achievement is well worth while; it ought to assist in producing a generation esthetically more sensitive and alive than the older one. But it is not enough. Taken by itself it will do something to further the private appreciations of, say, the upper section of a middle class. But it will not serve to meet even the esthetic needs and defaultings of contemporary industrial society in its prevailing external expressions.²⁹

In this paragraph Dewey took his stand within the ranks of the classic phalanx of progressive education. The times sided with him. America fell into the depression of the 1930's and the humanitarianism of the old-line progressives once again gathered strength greater than that of those devoted to the idea of creative self-expression.

Would there have been a genuine rapprochement between the two who might have been twins within a larger progressive movement? There was no opportunity to know. The depression ended with the onset of World War II and progressive education ceased to exist as a movement. The Progressive Education Association struggled on for a few years more, but in 1955 it, too, died.

29 Ibid., p. 206.

Pioneers of International Education 1817-1914*

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The quest for international organization in education from 1817 to 1914 is reflected in the changing political, social, and economic pageant of European history. Nationalism starting with the French Revolution expanded under both the period of Romanticism and that of Realism. With the growth of nationalism came more urgent demands for peace congresses and arbitration of disputes through international agreements. The first Peace Congress followed the Napoleonic War and marked the beginning of efforts to educate man for peace instead of war. When viewed retroactively the peace efforts appear meager compared to the rising militarism and forces of nationalism.

Nationalism permeated practically every aspect of a nation. In literature there was emphasis on the past, particularly on the accomplishments of former leaders. In England Tennyson exalted King Arthur, Victor Hugo wrote of Notre Dame de Paris in France, and in Poland Adam Mickiewicz discoursed about the power of medieval Poland and the natural beauty of the Polish countryside. In Germany Klapstock replaced Greek mythology with German legends.

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In art there was a demand for paintings portraying great events of the country's history. The signing of the Magna Carta and the heroism of Joan of Arc were representative subjects for an art that would glorify the past. More extensive art galleries and museums played their role in developing a greater concept of a nation's past. Statuary like that found on the Arch of Triumph is typical of the nationalist romanticism of the period.

In the field of music, national anthems were composed, folk songs of the past were revived, and new folk songs were written; opera became more nearly a national institution. Wagner used German folklore as a basis for many of his works; Verdi became identified as a composer of national Italian opera.

With the spread of the Industrial Revolution newer armaments appeared. Nations now had greater wealth, and in 1860 volunteer professional armies began to be supplanted by conscript popular armies. With this change there was greater emphasis on extolling the nation and the duties of its citizens to the state.

The new historiography which appeared helped to bolster pride in the past. "History became less rational and more pragmatic in kind." Baron von Stein

¹ Carleton J. H. Hayes, History of Modern Rome (New York, The Macmillan Company, 1939), Vol. II, p. 123.

sponsored a project to collect records and reports of medieval Germany. The first volume, *Monumenta Germaniae Historica*, was published in 1826. In 1800 the Parliament of England appointed a special committee to publish the chronicles of medieval England and Ireland. In France a similar project was started in 1834.

The period witnessed the beginning of the national systems of education that were to develop in the twentieth century. The establishment of a school fulfilled many needs, ranging from the humanitarian motives of the Chartists in England to the naked nationalism of Prussia, where the educational reforms of William von Humboldt had established the foundation for the Prussian school system and the nationalist university of Berlin. For others the schools would produce the needed manpower in the expanding industrial revolution. Whatever the reason, the schools came to be an important tool for the development of nationalism.

Many of the early leaders thought that nationalism was a corollary of democracy; others thought it could lead to peace. Such nationalists as Herder in Germany, for example, were also pacifist humanitarians.² Fichte, inspired by the French Revolution, could write of the rights of man and with equal vigor of the Germans as an "eternal people." This dichotomy of concern for peace and at the same time intense nationalism helped and hindered the movement toward internationalism.

It is against this background that the efforts of the pioneers in international education should be examined. The forces

² Hans Kohn, *The Idea of Nationalism* (New York, The Macmillan Company, 1944), p. 438. ³ Johann Gottlieb Fichte, *Addresses to the German Nation* (Chicago, The Open Court Publishing Company, 1922), p. 151. of cultural nationalism had paved the way for political nationalism. The proponents of a bureau of international education were attempting to reverse the movement of the pendulum and use cultural forces to create international understanding. While they had not all been educators, there was common agreement that the one agency capable of performing this task was the school.

MARC-ANTOINE JULLIEN

The work of Marc-Antoine Jullien might have been overlooked altogether had not Francis Kemény found Jullien's pamphlet (Esquisse et vues préliminaires d'un ouvrage sur l'éducation comparée) at a bookstall in Paris in 1885. Articles based upon the pamphlet had appeared in the American Journal of Education in 1826 and in the Journal d'Education.

Jullien's work was published in 1817, during the great wave of reaction following the Napoleonic Wars. Jullien had been appointed to a position comparable to under-secretary in the first attempt to organize a special department of education in France. The Holy Alliance had been formed and there was now hope that a period of peace and prosperity could be established. In many ways the reaction during the time of Jullien was similar to that which followed World War I and World War II. But whereas World War I was followed by the League of Nations and the International Bureau of Education, and World War II by the United Nations and UNESCO, the power of nationalism was such in Jullien's time as to prevent any similar organization.

The first step in organizing a world education center could be taken, according to Jullien, by establishing a "Special Commission on Education." The commission would be organized with the co-

operation of one or more states and the help of educational associations. The function of the commission would be to gather educational statistics and reports. Over a three-year period it would be possible, according to Jullien, to compare the educational conditions in all European countries. The reports of the commission as well as those on education from various countries would be published in an "Education Bulletin." The questions posed by Jullien in his pamphlet (Esquisse et vues préliminaires d'un ouvrage sur l'éducation comparée) may appear rather elementary when seen in the perspective of modern international and comparative education, since they range from those concerned with the length of the school day to those on the use of the depromoter. However, many of the questions suggested by Jullien have been used as the basis for studies by the International Bureau of Education and UNESCO.

While the questions appear to deal with rather simple matters, Jullien's belief was that this was the way to begin international understanding. He used Switzerland as an example of an area that had in its time a cantonal mind rather than a Swiss mind. If Switzerland, with its various religious, political, and social backgrounds, could be fused, then, he reasoned, it would also be possible to develop an international European mind.⁴

The first volume of the American Journal of Education contains a brief article on Marc-Antoine Jullien and lists some

⁴ Unfortunately, the lack of primary material concerning Jullien's work means that the student of international education must depend upon secondary sources. While Jullien is better known for his Esprit de la méthode d'éducation de Pestalozzi—a book that remained for decades the most definitive study of Pestalozzi—his work on international education is confined to 56 pages found in the Journal d'Education. and to his pamphlet.

of the questions proposed by the French educator. The editors state, "The very perusal of his questions will, we think, do much good everywhere." The article ends with a statement that more on Jullien's work will appear subsequently. Unfortunately, no other articles on the work of Jullien appear in the *Journal* and this appears to be true in Europe as well as in the United States.

Jullien's interest in international work was not confined to education alone. He also organized a "French Society for the Union of Nations" which again, although not successful, became a forerunner of the League of Nations and the United Nations.

HERMAN MOLKENBOER

The proposal by Molkenboer for a permanent international council of education was presented sixty-eight years after the publication of Jullien's pamphlet. In terms of the political climate of Europe the time was more expeditious than when Jullien proposed his questions. The concept of internationalism had developed and there were examples of nations able to work together. Between 1840 and 1912, four hundred noncommercial international organizations had been formed.6 Conferences held at Geneva in 1864 and 1868 had produced the international Red Cross Treaty. The question of the use of explosive bullets in warfare had been discussed at the St. Petersburg Conference in 1868. The Paris Congress of 1856, while not successful, had introduced the idea of international arbitration. The Crimean War had been brought to a close by international agreement. At Berlin in 1878, Russia had been

⁵ American Journal of Education, 1:408, July,

⁶ Office Central des Associations Internationales, Publication No. 25a (Brussels, 1912), pp. 11-12.

compelled to bring her peace treaty with Turkey before the European community for consideration and revision.

In the field of education, an education conference held in London in 1851 had been attended by representatives from Germany, France, England, and the United States. John Eaton, United States Commissioner of Education, presented to the International Conference on Education held at Philadelphia in 1876 a plan for a permanent organization that would be responsible for future international conferences. At the Philadelphia meeting thirteen countries and nearly every state in the United States were represented. The International Conference on Primary Instruction, held at Brussels in 1880, voted in favor of an international council of education.

To Herman Molkenboer, peace could be established only through people. Governments, he believed, had to wait until people were ready to disarm and work together peacefully. On this basis, emphasis should be on helping teachers teach world understanding. If all the children throughout Europe were taught simultaneously to respect and love their neighbors, then world peace would be assured.

To promote the idea of an international council of education, Molkenboer started publishing a periodical entitled Journal of Correspondence on the Foundation of a Permanent and International Council of Education. The Journal was published in French, English, and German. It was intended to serve as a means of disseminating educational information and also became a vehicle for promoting its originator's idea of an international council.

Molkenboer was among the most idealistic of the earlier planners for international education. Although he was a citizen of the Netherlands, the majority of his work was published in Germany. The overtones of pacifism found in his few documents and in his correspondence led to the refusal of many teacher groups to participate in his organization. Europe had moved into a period of great colonial expansion. Africa was being occupied by European powers. The Congress of Berlin (1885) had set the stage for reducing friction between European countries by exchanging ideas and agreeing on colonial areas. With expansion came an in-

crease in nationalism.

When viewed today, Molkenboer's proposal for a permanent international council of education appears for the most part quite reasonable. To document his belief that an international council could function, Molkenboer cited the United States. Here, he reasoned, were many people of various European backgrounds brought together. Despite differences in language, religion, and social backgrounds it had been possible to create a federal government. If this could happen in the United States, why would it not be possible in Europe? Molkenboer presented his plans for international education in a pamphlet entitled Der Bleibende Internationale Erziehungstrat. The Council, according to Molkenboer, would consist of members nominated by national committees and appointed by governments. It would therefore be both nongovernmental and governmental. The Council would represent the interests of education, and through its reports would be able to suggest improvements. It was Molkenboer's belief that by cooperative planning, textbooks could be revised to eliminate hatred and distrust.

The Council was to meet once a year in plenary session. Work during the year was to be carried on by commissions who would present the results of their work to the plenary session. Molkenboer placed great reliance on national commissions of education which would cooperate with the work of the Council. National commissions not only would take part in international surveys but would initiate studies. They would in effect present original concepts that could be adapted by other countries.

Molkenboer was so convinced that his plan could produce world peace that he suggested that the funds used by governments to support his plan be taken from the budget of the Ministries of War. If the Council was successful, then there would be no need for war budgets and all the money formerly allocated for armaments could be used for education.

In an attempt to get this Council started Molkenboer formed a Temporary Committee for the Foundation of a Permanent and International Council of Education. He organized a group called Pax Humanitate to assist him in promoting the work of the Council. Several hundred subscribers from nineteen countries had joined his Committee by 1890. Unfortunately, Molkenboer did not take an aggressive role in gaining the support of governments, and within a short period the movement collapsed. Molkenboer left meager records—a few copies of the Journal of Correspondence on the Foundation of a Permanent and International Council of Education and his pamphlet. Lack of support might be attributed to what was viewed as his pacifistic tendencies. In commenting on the disintegration of his Committee Molkenboer wrote, "The governments are waiting for the educationists to take the initiative, and the educationists are waiting for the governments."7

PEACE MOVEMENTS AND INTERNATIONAL EDUCATION

The period marking the close of the nineteenth century and the beginning of World War I witnessed the greatest effort to build world peace that had yet been experienced by man. The Hague Conference of 1899 had been followed by a successful second conference in 1907. The Hague Tribunal, established as a result of the first conference, had settled successfully eleven disputes among nations between 1899 and 1910.

The Nobel Institute had been established in 1904. Devoted to bringing into harmony people of the world, it received great publicity through the awarding of its peace prizes. The Jean De Bloch Foundation, founded in 1902 in Switzerland, was concerned with showing the world the moral, economic, and social consequences of modern warfare. The Lucerne Museum of Peace and War, established in 1902, attempted to demonstrate through exhibits what the results of European war would mean for the individual. In Paris the Office Central des Nationalités was organized to acquaint people with the cultures of other people in the world. It published a monthly journal, Les Aurales des Nationalités, that told in a sympathetic manner of the art, literature, religion and home life of people in various nations. The Institut International de la Paix, founded in 1903 by Prince Albert of Monaco, was concerned with publishing documents on international law that would contribute to peace, statistics on wars and armaments, the development of international institutions, and pacifist propaganda. The International Law Association, which had been formed in Brussels in 1873, expanded its activities; the Central American Court of Justice was established in

⁷ Pedro Rosello, Forerunners of the International Bureau of Education (London, Evans Brothers, Ltd., 1944), p. 22.

1908; the Carnegie Endowment for International Peace had been established in 1910 with services devoted "to hastening the abolition of international war."

The International Peace Bureau was created in an effort to facilitate the work of the many organizations dedicated to work for peace. The Bureau was for the most part concerned with providing materials and bibliographies on peace, arranging for international congresses, and making known instances in which nations had used arbitration as a means of settling disputes.

Formed in Great Britain, the School Peace League had among its aims to promote, through the schools, international peace, arbitration, and friendship; to study in meetings and conferences the problems of racial relationships and the best means of developing in the minds of children right ideas concerning them; to study the history of the international peace movement; to promote, through lessons in civics, the development of a rational and humane national life and patriotism, and a sense of the corresponding duties to humanity; to print and circulate literature bearing upon these points among teachers of all kinds; to foster courage and devotion in the pacific spheres of industry and social service; to work in connection with similar organizations abroad for the establishment of an international organization.

The American School Peace League started in the fall of 1908 as a result of the interest of educators who had participated in the National Peace Congress which met in New York in 1907. The League had as its objective "to promote, through the schools and the educational public of America, the interests of international justice and fraternity." The in-

Day or Hague Day on May 18 was shared by societies in England, France, and Holland.

The League was organized with a governing Council of fifty persons representing each state. State branches and more than one hundred local branches were organized. State branches provided speakers for educational meetings, encouraged schools to observe May 18, donated material to libraries, and helped organize student branches in high schools and normal schools.

From its inception the League planned its annual meetings to coincide with the meetings of the National Education Association. In 1912 the Association passed a resolution praising the activities of the League. It read:

The very material advance made in the cause of world peace during the past year encourages the National Education Association to urge a more widespread dissemination of knowledge upon this vital subject. We commend the American School Peace League as a channel through which teachers may procure such knowledge, together with suggestions for its presentation. The league has done excellent work in collecting and organizing material which appeals both to children and to adults; the accuracy of its statements is not questioned; its arguments are sound. The proposal to establish a world tribunal to fill the place of an international court for civilized nations is worthy of commendation and should have the earnest support of all teachers.9

The success of the League led the United States Bureau of Education to invite its secretary, Fannie Fern Andrews, to edit a special pamphlet entitled Peace Day. The pamphlet offered suggestions for the celebration of May 18,

American School Peace League from 1908 to

⁸ American School Citizenship League: An Eleven Year Survey of the Activities of the

¹⁹¹⁹ (Boston, 1919), p. 11. ⁹ Fannie Fern Andrews, ed., Peace Day, United States Bureau of Education Bulletin, 1912, No. 8, p. 25.

the anniversary of the first Peace Conference at the Hague. William Howard Taft, in an article included in the pamphlet, wrote, "If the United States has a mission, besides developing the principles of the brotherhood of man into a living, palpable force, it seems to me that it is to blaze the way to universal arbitration among the nations, and to bring them into more complete amity than ever before existed." Fifty thousand copies of Peace Day were requested by teachers in the United States. The success of the 1912 pamphlet led to a second Peace Day published in 1913.

LEBONNOIS

Lebonnois became interested in an international institute as a result of his work as director of the first University Summer Courses at Caen. The popularity of summer courses led to a number of universities' inaugurating the general plan followed at Caen. Unfortunately the result was poorly organized courses offering a variety of diplomas of dubious value. In thinking through the need for a central institute that would bring order to the numerous summer programs, Lebonnois was led to plan for the International Institute of Education at Caen. This Institute, established in 1911, like Peeters' Bureau (described later) was private. The cost of financing the Institute, including maintenance of a library and a quarterly periodical called Le Courrier, was to be borne by the Summer Courses at Caen. Lebonnois emphasized the role of teachers in the Institute. Readers of Le Courrier and all members of the Institute were to be active in supplying both the periodical and the Institute with facts on education in their respective countries and with articles for the journal. Members of the Institute were also 10 Ibid., p. 10.

expected to participate in an international survey which would cover nearly every aspect of education, ranging from the history of school legislation to the life of students in the universities. The proposed survey suggests the same type of goal which Jullien hoped to achieve through the questions posed in his pamphlet mentioned earlier.

The Institute was concerned mainly with teachers; by 1914 there were six hundred members. With the beginning of World War I it was impossible to publish *Le Courrier*, and the Institute collapsed. Following the war the Institute was re-established, but its function was limited to preparing students for diplomas in the study of the French language.

EDWARD PEETERS

Although Jullien, Molkenboer, and Kemény had presented plans for an international bureau of education, Edward Peeters was the first to create a world center for educational information. He founded in Ostend in 1908 a publishing firm, La Nouvelle Bibliothèque Pédagogique. The success of the firm led Peeters into correspondence with a number of educators throughout the world who saw his work as the first practical step toward a more ambitious project. The success of a quarterly bibliography on recent educational books, Bulletin bibliographique de la N.B.P., led to its conversion to a monthly periodical in October, 1909 with the title Minerva: A Review of Information Relating to Education and the Teaching Profession. For Peeters the publication of Minerva marked the beginning of the International Bureau of Education.

It is difficult to judge how effective Peeters' work was in these years. Ostend was in the war zone and records and documents were destroyed. There appeared to be a great deal of interest, for Peeters was able through correspondence and arranging meetings with European educators to have a constitution accepted. He planned to have the first meeting in 1912 at the Hague, at the same time as the second International Conference on Moral Education. The time was unfortunate, for many who might have attended Peeters' meeting were committed to attend the other conference. While his group was small—only six persons-it included men like Kemény, who were devoted to the idea of international education. The six attending the conference revised the constitution and set up a number of subcommittees to work on plans for expanding the Bureau. An offer of cooperation with the Conference on Moral Education was ignored by that body.

Despite serious financial difficulty the Bureau continued to expand its work. Monographs on education in Japan, Panama, Colombia, the Belgian Congo, the Netherlands, and Bulgaria were published. A monthly periodical concerned mainly with correspondence by educators was started.

Unfortunately the financial problem and the growing threat of war ended the activities of the Bureau, which had remained primarily a private institution. While it had some support by governments it needed more financial assistance. The Carnegie Endowment was approached by Kemény for funds, but it was committed to a plan for an intergovernmental conference on education, sponsored by the World Peace Foundation of Boston. The only other way the Bureau could have maintained itself would have been by means of greater support from educational associations. Unfortunately, while there was a great deal of moral support there was little financial assistance.

FRANCIS KEMENY

For Francis Kemény, nationalism and internationalism were not contradictory but complementary. He viewed each national culture as being international. All cultures, he reasoned, have borrowed extensively from one another; therefore it would be possible for nationalism and internationalism to develop simultaneously. However, development of cultural internationalism would depend upon international education. The best means of carrying out international education would be through an international institute of education. Kemény's views on the need for an international bureau were set forth in a bulletin published in Berne in 1905.

Kemény saw international education as possible in six areas. One area would be concerned with descriptions of educational systems in various countries, including statistics on such matters as school enrollments, years of preparation for teachers, and the cost of education. A second area would be responsible for international conferences for teachers, at which examples of work in education being carried on by various countries would be on exhibition.

The third area—the one which Kemény considered to be basic to all others -would be concerned with possible international agreements on the organization and structure of education. If the projected bureau could take the leadership in coordinating educational development, even in a few areas, then it could develop into an effective world center of education. The fourth area would employ phasize the rights of man, with education based on the philosophical foundations of the democratic countries of Europe and the United States. These basic rights Kemény viewed as imperative for future development in international education. The fifth area would be concerned with counteracting chauvinism, and would represent an international effort to eradicate from textbooks material which fostered hatred of other nations, and a concerted effort by all nations to emphasize peace in the schools. Kemény's final area appears remarkable in view of the fact that it was suggested fifty-three years ago. He emphasized the need to eradicate racial prejudice. To accomplish this he proposed a special division in the Bureau which would work closely with the division concerned with the rights of man. While Jullien and Molkenboer had proposed international bureaus, it remained for Kemény to realize the impact race relations would have on governments and world politics.

An international bureau, as he saw it, must have the support of governments if it was to be successful. This was necessary for both professional and financial reasons. Membership would be composed of government representatives, professional organizations, and individuals who were interested in international education.

Kemény, like Molkenboer, realized the importance of a journal and proposed that a periodical concerned with international education be published in French, German, and English, with the cost to be borne by the governments who submitted articles.

While Kemény's proposal for an international bureau and a journal were never realized, they were an important step leading to an international bureau. Kemény devoted the remainder of his career to helping Edward Peeters and Dr. Fannie Fern Andrews in their work in international education.

FANNIE FERN ANDREWS

It is ironic that the first real opportunity for an international conference on education was scheduled on the eve of World War I. The work for planning the conference was largely that of Fannie Fern Andrews. Miss Andrews had been a leader in the American School Peace League and had been responsible for the successful Peace Day pamphlets published by the United States Office of Education. The success of the pamphlets led Miss Andrews to start correspondence with a number of teachers' associations and interested groups in Europe. At the Eighteenth Peace Conference, held in Stockholm in 1910, her plans for an international council on education were approved. In order to popularize her proposal Miss Andrews lectured to various teacher groups throughout the continent of Europe and in Great Britain. She finished her lecture series convinced that efforts to carry out the beliefs of the School Peace League could not succeed without the cooperation of the Ministries of Education. Whereas Miss Andrews had originally thought of the council as a private organization made up of teachers' associations, she was now convinced that it would have to be intergovernmental. This was particularly true as many countries had a highly centralized system of education and the possibility of introducing any change in the curriculum would depend upon the willingness of the central governments through the Ministries of Education to cooperate. Whereas she had regarded a council as simply a group to put into effect the ideas of the School Peace League, her travels and experience led her to suggest a bureau which would include a permanent committee on education research to serve as a clearing house for education, an international library, a translation division, and plans for issuing an educational journal. The ultimate goal would be an organization as influential as the

Hague Peace Tribunal.

While she had been in Europe Miss Andrews had received unofficial promises of support from many educational leaders and government officials. With the support of President Taft, she was named in 1911 as Special Collaborator in the United States Office of Education. With The Hague standing as an example of international cooperation, Miss Andrews suggested that the conference be called in the Netherlands if that government was willing to serve as host. Before making an official request, the State Department unofficially asked if the Netherlands Government would serve as host. It at first declined the invitation but later agreed to serve if the conference was scheduled for the following year and if an appreciable number of governments would participate.

Having traveled through Europe visiting ministries of education, Miss Andrews was able to report by November, 1912, that the majority of European countries were interested and would send representatives. The Netherlands issued official invitations to Belgium, Luxembourg, Denmark, Norway, Sweden, Germany, the United States, France, Greece, Great Britain, Italy, Austria-Hungary, Spain, Portugal, Roumania, Russia, Switzerland, and Japan. The invitation listed for the agenda fifteen subjects, ranging from religion and education to education of the blind. Two months after the invitation had been sent, only France and Switzerland had accepted. The United States Government, which had taken the lead in organizing the Conference, did not accept the invitation because of an Act of

Congress (Deficiency Act) passed in 1914, which forbade the participation of the United States Government in any international congress without permission from Congress. As Congress was in recess, it was necessary to wait months before it reconvened and permission for the United States to attend could be granted. The resulting months of delay and the reluctance of other countries to attend led to a postponement of the conference until 1914.

The invitation sent out by the Netherlands Government in January, 1914, was more explicit in suggesting that the Conference would establish an international bureau of education. Included with the invitation were suggested articles for the establishment of by-laws. The United States Government, through its embassies, now urged that all governments support the conference. Unfortunately the response from other governments was discouraging. Europe was on the threshhold of World War I and felt little concern for education conferences.

Of all the proposals presented, the work of Fannie Fern Andrews represented the best-organized approach to the establishment of an international bureau of education.

CONCLUSION

The failure to establish an international bureau of education before World War I can be attributed to many reasons. None of the governments approached was willing to ing to give consideration to an agency which might eventually have profound influence on the nationalistic role of the school. Peace congresses might be organized, agreements on postal unions could be signed, a beginning in international arbitration could be made through the Hague Tribunal, but few governments were willing to participate in an organization that was viewed by many as pacifistic. Except in connection with Molkenboer's attempts there is little evidence that the charge of pacifism was a legitimate one. The interest in internationalism, particularly in the first decade of the twentieth century, had reached its greatest height. And yet the influence on education was for all practical purposes nonexistent. The power of nationalism, increased militarism, and propaganda destroyed any efforts in the field of international education.

A second reason for failure can be attributed to lack of leadership and coordination. While Jullien and Molkenboer stood alone in their respective periods as individuals interested in international education, the lack of coordination among leaders such as Lebonnois, Peeters, and Andrews, who were functioning in the same period, weakened the movement that could have been developed. Francis Kemény was willing to support others and did much to help Fannie Fern Andrews. But he was an exception.

The lack of encouragement by teachers is a third reason for the failure of the early groups. Teachers had not as yet

formed large associations that could give effective support. Where associations did exist, there was more concern for the methods of teaching than for the international aspects of education. As governments were reluctant to support an international bureau of education, teachers, as nationals, were hesitant to join what might be considered a disloyal cause.

The major contributions by the early pioneers in international education were: (1) to awaken an interest in international education after World War I; (2) to suggest techniques that were later developed by the International Bureau of Education and UNESCO; and (3) to disclose some of the pitfalls to be avoided if an international bureau was to be successful. It had been demonstrated that if a bureau hoped to be successful it would have to be intergovernmental, not private. This was necessary from the viewpoint both of finances and of effective professional cooperation. The efforts of the early pioneers had also shown that educators by themselves could accomplish little. Unless there was support by the total society, efforts in international education would be futile.

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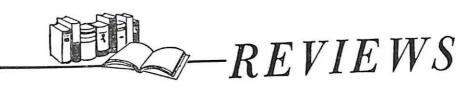
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The Unsilent Generation, Otto Butz (Ed.). New York, Rinehart and Company, Inc., 1958. 189 pp. \$2.95.

It is difficult to understand why The Unsilent Generation has aroused so much excitement. This anonymous symposium of eleven Princeton seniors has received far more credit and recognition than it deserves. The views these young men express on happiness, success, security, God, education, marriage, and their own generation are often shocking, seldom encouraging, and never important.

For some reason, many readers and critics have assumed that the boys who wrote *The Unsilent Generation* represent the voice of today's youth and tomorrow's leaders; only the wildest sort of extrapolation allows for such statistical banditry. Eleven Princeton seniors are eleven Princeton seniors. They cannot be considered prototypes of American youth, the college senior, or even the Princeton undergraduate.

It's true that these students are quite articulate and outspoken in their beliefs. One contributor confesses:

My parents have always told me I was too egotistical. So have the girls I've known. I agree. I am egotistical. But the reason, quite simply, is that I'm convinced that if you want to get anywhere in this world of dogeat-dog, you have to be egotistical. I once ran across a paraphrase of the Biblical Golden Rule: Do unto others as they would do unto you, but do it first. That's my motto.

Another writer admits the ignoble reason he chose the army as a future career:

But, as I have said, I am donning a uniform first and foremost because it is supposed to lift you a little above the man in the gray flannel suit. It assures you a place in society which you don't have to earn yourself. Perhaps this is too cynical a view of myself but

try as I might, I can't seem to convince myself that I really enjoy giving and taking orders for any more noble or intelligent reason.

Not all the confessions are so crass. Occasionally an intelligent, sensitive thought appears. The writer who calls himself "The Third Eye" appropriately admits, "The characteristic fear of our generation is our horror of finding ourselves ludicrous." Yet for all their bravado and histrionics, these boys can be dismissed with the gracious courtesy a heady senior deserves: a pat on the head, a strong "C" as a grade, and the suggestion to keep right on thinking about the big problems in life.

Even if these young men did epitomize the undergraduate mind, there would be little reason for alarm; time alone should be able to alter and correct the sentiments of these zealots. Any experienced college professor knows that with each passing year the freshmen become younger as he becomes older. The same inverse ratio of maturation probably applies to those who are presently concerned with the unsilent generation, the beat generation, the angry young men, and all other young rebels. In each generation the older members of society feel a little older and wiser than they are and judge their offspring as being a little younger and a little less mature than they are. And, for this reason, each generation will find its own brand of late-adolescent eccentricity.

Today, we sometimes sense that there is the problem of a rebellious younger generation. Perhaps a ten-year moratorium on the judgment of these minors would help us out of the dilemma. Let the intellectuals and aesthetes of the younger set beat their drums and let criticism rest for a decade. "Give me the young man who has brains enough to make a fool of himself," said

Robert Louis Stevenson. So, too, ought we to console ourselves. Skepticism and cynicism are healthy attitudes for college seniors. If, however, the boys who wrote *The Unsilent Generation* express the same sentiments ten years hence, protest would be in order.

Morris I. Berger New York State College for Teachers (Albany)

Sociology and the Field of Education, by Orville G. Brim, Jr. New York, Russell Sage Foundation, 1958. 92 pp. \$1.00.

Sociology and the Field of Education, the third in a series published by Russell Sage Foundation for the American Sociological Society, is an excellent inventory of the major contributions to education that have come from sociological thought and research. It is also a critical evaluation of the accumulated knowledge; moreover, it looks to the future in respect to "how sociological research on education can contribute both to the growth of general sociological theory and to the solution of practical operating problems of the educational institution."

Dr. Brim goes about his assignment of assessing "sociology and education" in a systematic fashion; he claims no finality, but he does bring into sharper focus the subject and object matters of sociology in respect to the advancement of knowledge about social organization, particularly those institutionalized ways that guide and control educative processes.

Perhaps the most useful section of this small volume is the Selected Bibliography. The citations are by no means exhaustive, or even comprehensive, but they can serve as a convenient list of materials that might suggest directions of future emphases. However, those students concerned with carving out newer and fresher frontiers in the area of "education and society" might find it just as profitable to examine the vast array of researches and theoretical advances

made by behavioral scientists who have focused attention upon industry and society, occupations and professions, and the social structure of the modern community. Many outstanding scholars in these areas have been labeled not only educational sociologists, but also economists, political scientists, rural economists, social historians, social and clinical psychologists, and so forth. All of this is to say that the scope of Dr. Brim's "selected bibliography" might be broadened to include pioneering works of others-Elton Mayo, Robert M. MacIver, Margaret Mead, Edmund de S. Brunner, Robert S. Lynd, Wilbert E. Moore, Earl S. Johnson, Goodwin Watson, Everett C. Hughes, Robert Thorndike, George S. Counts, Fritz Roethlisberger, Emile Durkheim, Thorstein Veblen, and many more-whose concepts and theories have aided the development of a more scholarly sociology of education, one that will have greater applicability for improvements in educational policy and practice.

Mozell Hill Professor of Education Teachers College, Columbia

Social Class and Mental Illness, by August B. Hollingshead and Fredrick Redlich. New York, John Wiley and Sons, 1958. xi + 442 pp. \$7.50.

"Americans prefer to avoid the two facts of life studied in this book," the authors warn in their first sentence. One of the two—mental illness—demands 55 per cent of all hospital beds, hence is difficult to ignore. The other—social class—is awkward to reconcile with traditional American aspirations toward equality of opportunity. "Even when Americans privately 'draw the line' between one another in subtle ways, they do not like to admit it in public."

August B. Hollingshead, Professor of Sociology at Yale University has been one of the most effective demonstrators of the unpopular facts of social class in contemporary America. Thousands of educators have

been genuinely shocked by the evidence, in his *Elmtown's Youth*, of public schools toadying to the prestige-carrying "Class I's" and pushing the underprivileged "Class V's" around. Now he has teamed up with Dr. Fredrick Redlich, Chairman of the Department of Psychiatry at Yale, to present another horrifying revelation.

The chances of mental illness in New Haven are three times as great for children growing up in lower class (Class V) homes as for children in the favored classes (Classes I and II). Moreover, the underprivileged are likely to suffer from the more serious forms of mental disease. In the upper group, 65 per cent of the patients are neurotics; only 35 per cent are the really crazy psychotics. The proportion of psychotics among patients treated for mental disease rises to 55 per cent in Class III, 80 per cent in Class IV, and 90 per cent among the families of the semiskilled factory hands and unskilled laborers living in the cold-water tenements of Class V. The neurotics of Classes IV and V can't afford the luxury of treatment. Like the neurotics of Soviet Russia they must just go on working. The prevalence of schizophrenia most widespread and serious of mental diseases—is 111 (per 100,000) in Classes I-II, but 895 (per 100,000) in Class V. The authors report that it is impossible to explain these facts by any theory of "downward drift" of the mentally ill. Most of the schizophrenics have spent their whole lives in the same or a lower class than they occupied at the onset of illness.

When it comes to treatment, "life chances" are again clearly related to social class. Eighty-six per cent of the neurotics of Classes I-II go to private practitioners; only 10 per cent of the neurotics of Class V get this preferred type of medical service. Of those who go as private patients to a psychiatrist, 45 per cent of Class I-II get psychoanalysis; only 19 per cent of Class III; 2 per cent of Class IV and none of Class V get into analysis. Among psychotics, 67 per cent of Class I-II go to private hospitals; 40 per cent of Class III, 5 per cent of Class

IV and less than I per cent of Class V are privileged to get this expensive treatment. If schizophrenics come from Classes I-II, 52 per cent get psychotherapy; if they have the same diagnosis but come from Class V, only 9 per cent are given psychotherapy. Electric shock or prolonged custodial care must suffice for most Class V's. Expenditures (private and public) for the treatment of a mentally ill patient in Class I-II average three times as much as for a Class V patient with similar diagnosis. The American Medical Association will be hard put to it to defend this situation as compatible with our democratic ideals.

Incidental to the book's main argument are several minor contributions of special interest. Chapter III traces the history of the status structure in New Haven from the colonial epoch to the present. Chapter IV supplements such classics as Caste and Class in a Southern Town, Democracy in Jonesville, and Yankee City by offering descriptions of the life typical of social classes in contemporary New Haven. Chapter V introduces a useful dichotomy of psychiatrists: the A-P's who are psychoanalytically oriented and the D-O's who rely upon directive advice (stern or friendly) and organic therapies with drugs, shock, and psychosurgery.

Teachers College, Columbia GOODWIN WATSON

Education in Nepal: Report of the Nepal National Planning Commission, Edited by Sardar Rudra Raj Pandey, Kaisher Bahadur K. C. and Dr. Hugh B. Wood. Eugene, Oregon, The American-Nepal Education Foundation, 1956. 254 pp.

Readings in Education, by Hugh B. Wood. Seattle, Cascade Pacific Books, 1958. 352 PP.

During the past decade reports on plans for the reconstruction of education have appeared in many of the so-called "underdeveloped societies." Some of these reports have been grandiose schemes completely devoid of the realities of the basic social and economic problems of the respective countries. Others have consisted of a frank analysis of the existing situation and well-conceived realistic plans for the improvement of education. Education in Nepal falls in the second category.

The report is the result of the work of sixty Nepalese educators and Dr. Hugh B. Wood of the University of Oregon, who has served as Educational Adviser in Nepal. The published report was obviously written for the foreigner, for there is included an excellent statement on the historical and geographical foundations of modern Nepal. The book is well illustrated and includes a contour map of the country.

Realizing the natural gap that so often exists between the educated elite and the great mass of people, the Commission deputized some of its members to tour the hinterland and get the responses of the people to a questionnaire that was designed to find out the type of education they actually wanted. Conferences were planned for people to meet and discuss plans for the development of education. While there are obvious limitations in attempting to discover what a people in an underdeveloped society want in the area of education, the effort made by the Commission in Nepal is one of the most ambitious undertaken in any country.

As a result of this survey the Commission proceeded to build a National Education system for Nepal. The result is a well-planned realistic approach for the development of an educational system that will meet the needs of the Nepalese.

While the Commission was concerned primarily with the development of an educational system, it has also presented a financial plan by means of which the desired change could be borne by the economy of the country. In this respect the Commission has been as candid as it has been in pointing out the basic needs of education in the country. To meet the costs of a national system of education the Commission

suggests, "Fundamental and general tax reform is the starting point." (p. 202) An additional chapter suggests a legislative program by means of which the educational system can be developed.

Chapters from Education in Nepal have been included in Readings in Education. This book consists of articles and governmental reports written by Dr. Wood during the past twenty-five years. One section is devoted to India and a second section is concerned with Nepal. The remainder of the book consists of articles that vary from "The Development of a Group-Guidance Program" to "An Annual for Every School." The author states that the book is intended as a "reference book for students, teachers and administrators." (Preface) Unfortunately the result is a book that lacks continuity and cohesiveness. The inclusion of the sections on India and Nepal, which in themselves would have been excellent monographs, appears incongruous in terms of the other material in the book.

David G. Scanlon Teachers College, Columbia

Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg. New York, Harper and Brothers, 1957. xi + 547 pp. \$6.00.

The Practice of School Administration, by Herold C. Hunt and Paul R. Pierce. Boston, Houghton Mifflin Company, 1958. x + 544 pp. \$6.00.

During the past ten years a new "school" has developed within the profession of educational administration. Made up principally of youngish men—theoreticians and research workers rather than practitioners or others whose chief work has been "in the field"—this new school has broken sharply with the past. Its parentage lies in scientific management, an offshoot of industrial engineering, peopled by professionals called "management consultants," who speak a language of their own. Hence this new school is a branch off the business tree, rather than a

connecting link with "classical" school administration.

Administrative Behavior in Education is the first comprehensive presentation of the views of this new school, which has received its developmental impetus from the annual sessions of the National Conference of Professors of Educational Administration and the beneficence of the W. K. Kellogg Foundation. Edited by two of the school's founders, the book's several chapters are authored by eighteen writers from a dozen institutions across the country that train administrators.

The difference between the new school and the classical school can perhaps best be perceived in terms of the chief thing that the newer group is trying to do. It hopes to build an encompassing theory that will embrace all administration—not just educational administration, business administration, hospital administration and the other adjectival permutations of the art. "Administration" substantively designated in terms of the common processes that run throughout the profession of management is the world that it has chosen to conquer. It aims to pitch one theoretical tent over the whole show.

A brilliant chapter by Daniel E. Griffiths describes what such a theory will look like when we get it and indicates how to proceed in order to get it. Why we need a theory that covers all administration is not immediately obvious. One gains the impression that it may be the fashionable thing to have. The phenomenal success of research in the natural sciences impels us to analogies in other fields of investigation, implying that to be taken seriously today a field must be thought of as a science and dealt with accordingly. The unified field theory is no doubt a fine thing for physics. Of course, one might note that it was a long time coming, and appeared only after there were voluminous data that required unifica-

The heart of this book is a paradigm by Andrew W. Halpin. This is a schematic intended to provide a basis for the system-

atic classification of research, past, present and future; just as the paradigm of a verb or noun exhausts all possible forms of that part of speech. Most of the book's chapters are devoted to review of the research that has already been done under various categories of the paradigm.

This makes it more a book of promise than of revelation. For, excepting an especially meaty chapter by Roald F. Campbell, most of the authors are compelled to deal with categories in which the research already accomplished is skimpy. It is precisely the function of Halpin's paradigm to point up this fact.

The far-reaching importance of a schematic that will outline ahead of time all the areas for research that should be investigated cannot be denied. Merely the importation of such a concept into the field of school administration may do more to liven it up than anything that has happened since the heyday of the surveys.

In any field of research a criterion is needed; something against which to compare the variables. In Halpin's paradigm the criterion of the administrator's effectiveness is the outcome in "organization products" of the enterprise he administers. It is this emphasis upon the man-the leader and his behavior-that causes one to wonder whether the ultimate theory of administration really lies in this direction. While differences in the efficiency of two corporations-say General Motors and American Motors-may be stated as a function of the behavior of their corporate leadership past and present, it is much less likely that differences in the efficiency of two school systems-say Little Rock, Arkansas, and Winnetka, Illinois-can be traced to the behavior of their respective chief administrators. Factors influencing the effectiveness of a school are numerous, complex, and intricate as compared to most other human enterprises, especially as compared to those whose chief index of quality is the profit and loss statement. There has been an enormous body of research on this point, and one notes with some shock that a book that attempts an allembracing theory of administration scarcely cites any of it.

A corollary is that "organization products" of a school system cannot be taken as the ultimate criterion of its administrator's effectiveness, for many other factors are responsible for these products. Thus without a well-nigh impossible control of a multiplicity of factors, researchers are robbed of a trustworthy behavioral criterion of administrator effectiveness.

It may be noted, however, that there are some areas of school administration in which the behavioral criterion is apt: staff relations, pupil personnel, particularly the day-to-day tasks of the building principal, who is somewhat more shielded than the superintendent from the naked influence of external factors. If they will forego the urge to bite off more than anybody can chew at the present time, these enterprising researchers from the new school will without question uncover many fascinating leads to that elusive critter, the successful school administrator, and how he can be fashioned out of ordinary material.

The Practice of School Administration is an elementary text in administration. There are basically two kinds of text: (1) the exhaustive compendium that includes most that has been theorized and researched by all who have labored in the field; (2) the personal statement that reflects the predilections of the author derived from his own labors in the field. We are likely to get the latter kind of book from authors who are distinguished for their accomplishments as practicing administrators. That is the case with the present book. Both authors were associated for many years in the administration of one of our largest school systems. Their predilection turns out to be a primary concern for the curriculum, and the instructional program. The early part of the book duplicates much that appears in elementary texts on curriculum. The role of the central office is viewed as that of an instructional service center. Home and community are treated as instructional extensions of the school. The school and school system are dealt with as a congeries of instructional departments and service agencies. Principal and superintendent are regarded chiefly as personnel directors.

As might be expected the emphasis in these treatments is upon city school administration. One does not get the impression that the topics dealt with should be viewed any differently in a small district or a rural district. The small district unit gets three and a half pages. The county unit and the county superintendency get three pages. Pupil transportation gets one page, the intermediate unit one page. One of the best chapters (and a subject too summarily dealt with in most texts in administration) is a compact but thorough review of the federal government's role in education. The senior author was, it will be remembered, formerly Under Secretary of the Department of Health, Education, and Welfare. There is a chapter each on state administration, higher education, the school plant, finance, and advancing the profession of administra-

But the book merits attention especially for the weight it places upon humanitarian considerations. Since it is a book on the *practice* of school administration it may be commended for dealing with the administrator as a chief human being among other human beings, though it may neglect to deal fully with some of the issues, considerations, forces, and influences that tend to make him seem otherwise to some human beings.

WILLIAM S. VINCENT Teachers College, Columbia

Fund-Raising for Higher Education, by John A. Pollard. New York, Harper and Brothers, 1958. xviii + 255 pp. \$4.00.

Volumes have been written about American philanthropy, foundation giving, corporation support, estate planning, and direct mail. Many articles are also available on such subjects as annual giving, alumni funds,

bequest programs, annuity plans and tax benefits. John A. Pollard's book deserves an accolade if for no other reason than that it is the first attempt to produce a comprehensive treatise on the theory and practice of modern fund-raising in higher education. As such, Fund-Raising for Higher Education becomes must reading for educational fund-raisers, for trustees and administrators, for faculty members, and for friends of education, all of whom have unique and usually unrealized opportunities for service in the development programs of American colleges.

Educational fund-raisers have suffered and, much more important, higher education in the United States has been diminished because educational fund-raising has not benefited from the sustained scholarly study accorded for years to other phases of administration such as business management, personnel administration and program development. Pollard's book pulls together most of what is known about successful fund-raising, and thus provides a platform from which sound research and experimentation can be projected in the future.

Whether educational fund-raising is a profession can be debated. In any case, one of the earmarks of a profession is that it accumulates a body of knowledge which can be learned by the novice who aspires to enter the profession. Assuming that educational fund-raisers wish to build a profession, Pollard's book contributes notably to the knowledge of educational fund-raising. It will do much to break down the legend that successful fund-raisers are possessed of certain trade secrets and clever stratagems which may not be shared with others. Fundraising can be learned and it can be taught. Pollard's work is a positive demonstration of this basic but widely neglected premise.

Perhaps the strongest aspect of the volume can be observed in Pollard's effort throughout the subject matter to represent fund-raising in its organic relationship to higher education. In achieving this objective

he compiles sets of guiding principles which are embellished and dramatized by examples of operating practices chosen from the best of American college and university development programs. He decries the kind of fund-raising organization which operates on the periphery of an educational institution. He emphasizes that an organic continuous development program "is today an inescapable necessity for any college or university or specialized school which aims to remain or become strong."

The experienced professional fund-raiser will detect certain gaps and omissions in the subject matter coverage of the book. For example, Pollard gives the impression that higher education in the years ahead may well be properly financed by gifts alone. Other authorities in finance, who also are ardent supporters of fund-raising in higher education, will argue that state and federal support will be needed in the not too distant future when higher education, like secondary education, becomes well-nigh universal. Even though development programs are carried to the ultimate in gift procurement, funds from tax sources will be required, so these authorities say.

It may be, too, that Mr. Pollard has not given full, appropriate emphasis to the obligation of a development program to create a financial potential as well as funds for the present. Much more information is available in such areas as bequest promotion, estate planning, trusts, life insurance and other futures than is presented in the book. This is also true for systems of gratitude and reporting and the ways in which these devices may be used to increase the fundraising score in any given institution. However, the positive contributions of the volume so greatly exceed its few omissions and lacks of certain emphases, that it will no doubt be accepted and used widely as a notable contribution to the literature of higher education.

ABEL A. HANSON Teachers College, Columbia

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Woodworth, Robert S., Dynamics of Behavior. New York, Henry Holt & Co., 1958. x + 403 pp. \$5.00.

WHAT EDUCATION HAS TO LEARN FROM PSYCHOLOGY, by PERCIVAL

M. SYMONDS

80 pages \$1.25

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TEACHERS COLLEGE RECORD

Editors' Foreword

how the theme for this special isssue was selected and how we went about planning the articles to be included. The idea took root in a proposal to the Editorial Advisory Board that our journal provide a forum for the discussion of problems and issues relating to educational theory. One generally recognized method of outlining the theoretical framework of a discipline or a field of study is to identify the questions that are distinctively, even though perhaps not exclusively, its concern.

We decided in this issue to focus attention on one significant educational question of concern to citizens and educators alike—What Shall the Schools Teach? We further decided that we would call on both practicing school people and representatives of certain ancillary disciplines on which education must draw to discuss the practical and theoretical dimensions of the question posed. We turned first to two practi-

tioners whose positions in the public schools force them to deal with problems of curriculum planning and asked that they discuss some of the important issues and problems that elementary and secondary schools face when they make decisions about what to teach. These statements constitute part one. Our next step was to submit these two statements to representatives of four fields of study -philosophy, developmental psychology, learning theory, and sociologyand ask them to address themselves to this question, What do your fields of knowledge contribute to answering the question posed? The discussions by these four men are included in part two. As the final step, the editors of this issue wrote an essay discussing the implications of the preceding articles for curriculum decision making. This essay constitutes part three.

> Arno A. Bellack Joel R. Davitz

Curriculum Problems: Impinging Pressures

HELEN FLYNN

DIRECTOR OF SECONDARY INSTRUCTION, GREAT NECK, N. Y., PUBLIC SCHOOLS

√ UCH of the story of American education has been concerned with the opening of new doors to broader vistas of life beyond the three R's. Yet one may well ask at the present time, with pressure being exerted from all sides, how many more doors can be opened without impairing the quality of basic learning experiences.

An appraisal of some of these impinging pressures reveals the increasingly complex problem educators face in choos-

ing what our schools shall teach.

Certainly much has been and is being written about the severe crisis in the field of science. Our educational confidence has been badly shaken by Russia's spurt into the space age. As a result, career scientists and laymen in the community are subjecting schools to greater pressures to produce more and better mathematicians as well as more expertly trained natural scientists. A question needs to be raised here. Should the schools work more zealously to increase the supply of scientists than they work to increase the supply of good teachers, nurses, or specialists dealing with the art of mass media communication? How early should schools gear the program to helping students make their vocational choices?

Along with this newest wave of concern about training scientists and mathematicians there can be discerned a whole army of vested interests which battle the schools for a hearing. What about introducing the teaching of Russian into the curriculum? How much Latin shall we continue to promote? Do our present language offerings-which include French, Spanish, and German along with Latin-represent an introduction to the kind of language background future citizens of a world society will need?

Following World War II and the ensuing appraisal of the armed forces' induction procedures, nation-wide concern was voiced for our schools to help provide a more comprehensive program to develop physical fitness. There are still large numbers with a continuing interest in this area who would seek to have schools extend their curriculum interests and activities into the maintenance and

operation of camps for students.

From the specialists on safety comes a hue and cry for more courses in driver education. Nor let us overlook, while on the subject of safety, the concern of the anti-tobacco and anti-alcohol organizations with what we teach youth about health and wholesome living. Additional groups point out that we should do more about courses in sex education, while still others insist that we not teach sex education at all.

Many individuals in the field of the social sciences point out that we need to put in the schools more content which relates to our stake in the "uncommitted" parts of the world. They describe present social studies courses as heavy in emphasis on the history of Western civilization and urge that we add much more which relates to the Near East and Far East. These individuals have numerous suggestions as to how current offerings should be revised.

Contrasted with the proponents of special-interest areas are many who admonish schools to teach the "whole child." Those in this group would concern themselves with broad areas organized for learning purposes into such offerings as Education for Family Living. Such courses have primary goals stated in terms of adjustment to life rather than

subject-matter mastery.

Still other problems in deciding what the schools shall teach rear their heads. One of these relates to the development of differentiated courses of instruction within a given subject field. Shall we select the ablest students and educate them to the highest level of which they are capable? Does this imply a return to the homogeneous grouping of the thirties, or shall we plan different subjectmatter offerings to meet the needs of varying abilities? How fast and how far should these capable students travel? Shall we move some of the college offering down into the high school curriculum? Or shall we give such students all they are able to take of the present high school content as fast as they can take it, and send them to college sooner than a normal program would allow?

Along with regard for the more able students, educators must feel equal concern for that segment of the school population who are less gifted. We are amply

and regularly provided with studies which reveal that, on the average, the less competent a student has shown himself to be in meeting school tasks, the more quickly he is released to face adult problems. What course revision do we need to develop better holding power? How much work experience needs to be a part of the school day?

In light of recent developments and pressures in the field of television, we need to appraise, too, how much formal instruction can be carried on by means of television without damage to the quality of the learning experience. Is television instruction, both closed and open-circuit, to bring about certain cur-

riculum changes?

As accompaniment to all these requests is heard the plea of parents that the schools teach more and better "study habits." Thus, to offset parental softness, schools are expected to produce disci-

plined products by formula.

What an imposing array of conflicts this is-education for life versus education for college; education of the whole child versus education for a career; demands for a longer academic day versus insistence upon a part-time work day; problems of deciding what to add and what to take away in making curriculum revision. Essentially and above all, however, is the paramount problem of freedom versus constriction. This conflict is a basic and far-reaching issue which cannot be side-stepped, and it is important that we appraise carefully the question of how far our schools can bend to outside pressures regarding what we teach without jeopardizing the freedom of educational development in a democratic society.

Curriculum Problems: Some Basic Issues

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URING the early days of our American public school system, the problem of what to teach was relatively easy to solve, since only a small portion of young people were in school, the emphasis was on preparation for college, vocational opportunities were limited, and the demands of society at large were few and far removed from the schools. Today, however, the problem of what to teach in our schools is complex and difficult. We have a far greater number of children from all strata of society, vocational choices are multitudinous, technical needs have been added to academic preparation, and the ever-increasing demands of society are now brought to bear upon the schools. If the public schools are to play an effective part in maintaining our democracy and our economic system, the problem of what to teach must be given much closer attention by all concerned. A few of the basic issues are discussed below.

1. Who shall determine what is to be taught?

As we work on the problem of what to teach in our schools, we might logically start with the question of who is going to determine the curriculum. Should it be the expert, the public at large, teachers, children, governments, or a combination of these groups?

2. How shall we organize and work to decide what is to be taught?

If the decision as to what is to be

taught is a cooperative process, then we have to decide how to organize and proceed with our work. Such questions arise as: Who shall assume leadership? How shall people become involved? How shall decisions be made and implemented? How shall the process be kept orderly, comprehensive, continuous, and cooperative?

3. What sources shall be used in determining what is to be taught?

Today there seem to be as many opinions as there are people regarding what shall be taught in the curriculum. Unfortunately, too few people have spent the time and effort necessary to arrive at well-founded conclusions based upon thought and study. In many cases judgments lack substantiation, whereas Tyler suggests that determination of the curriculum might come from such defensible sources as the study of the learner, contemporary life, subject-matter specialists, philosophy, and the psychology of learning.¹

4. Shall we provide a comprehensive curriculum for all children and youth?

With more and more students in our schools, with more students remaining in school longer, with a greater diversity of student interests and needs, and with

¹ Ralph W. Tyler, Basic Principles of Curriculum and Instruction, Syllabus for Education 360, pp. 4-28 (Chicago, The University of Chicago Press, 1050).

ever-expanding demands by our society, the question of how comprehensive the curriculum shall become must be settled before we can decide what to teach. Furthermore, a comprehensive curriculum leads to questions concerning means of meeting the individual differences of students, such as courses for slow students, courses for gifted students, ability grouping and multiple curriculums within each school.

5. What shall we regard as general and as specialized education?

In deciding what is to be taught it makes quite a difference whether the course or subject is to be required of every student because of its general value in everyday living, or is to be elective because of its unique value to the individual, owing to his special interests and needs. Some would argue that general education should always come first and specialized education second, if the budget permits. However, this is a difficult problem because it is often hard to determine what everyone needs and whether or not specialized subjects are as important to the individual as the general ones. The old question, What is a frille enters into this argument because art or music might be frills for some students, whereas Latin and algebra might be frills for others.

6. How shall we maintain a balance in

The most thoughtful scientists and engineers are not arguing for a narrow science and mathematics curriculum, because they realize the need for other subjects such as English, social studies, foreign languages, physical education, and the cultural arts. The argument seems to be over the amount of emphasis scientific subjects in our curriculum should receive with a fair share of students entering science and engineering. However, there

are people in our society who always ride tidal waves, whether these waves are citizenship, physical fitness, mental health, safety, science, or engineering. Perhaps educators need only to keep their heads and work calmly for a balance in the curriculum, with new emphases from time to time, while avoiding an avalanche of emotionalized, hasty decisions.

7. What subject areas deserve immediate consideration?

If we believe in a well-balanced curriculum for all of the children of all of the people, and if we believe that improving the curriculum is a continuous process, then we should be ready and willing to give serious attention to some of the most controversial areas of the curriculum. This is not because these areas necessarily need to be added to or deleted from the curriculum, but because they may need to be improved, or to be more clearly interpreted to the public, or because new research and experience may be available to help in the study of these areas. In the elementary schools, some of these controversial subjects are: science, arts and crafts, music, physical education, health and safety, foreign language, geography, and in some cases civics. In the secondary schools, subjects for consideration include: reading courses, separate "tracks" and "speed-up" courses in mathematics, required science, driver education, home and family living, agriculture, conservation, art, music, physical education, health and safety, the Russian language, vocations, core, and advanced courses in the humanities. Furthermore, economic education and citizenship education in both elementary and secondary schools are becoming the concern of more and more people. The high school, with its elective system, may solve many of these

problems more easily than the junior high school, where electives have been on the decline and where many people seem to want more and more high school subjects taught. Obviously the schools cannot teach everything that is requested, so choices will have to be made or differentiation within courses and blocks of time will have to be utilized.

8. How shall we teach what is to be taught?

In the process of deciding what is to be taught, we should always keep in mind how the curriculum will be taught. There is little or no value in placing a subject in the curriculum unless it can be taught effectively. In fact, some of the criticism now being directed at some areas of the curriculum may be due to ineffective teaching. Serious consideration should be given to the amount of teaching that still exists based upon the pure association theories of learning, using the low level rote-memorization, sit-still, pouring-in type of learning. The basic question may be, How can we encourage teachers to teach for insight through analysis, relationship, and generalization based upon the field theories of learning? The approach now used by many people in meeting social, economic, political, and educational problems might lead us to believe that much is yet to be done by the schools in teaching critical thinking through problem

9. How shall we finance what is to be

Right now and for the next several years we are facing, and will face, a severe financial crisis in American education. Too many people use the sole criterion, Can we afford it? in determining the curriculum, whereas the criterion should be, Is this desirable and, if so, how do we pay for it? It is of little avail to talk about adding or improving courses in the curriculum unless the tax structure is such that we can raise the funds necessary for a desirable educational program for children and youth. Undoubtedly, every educator should assume some responsibility for improving our tax structure as he works on what is to be taught.

10. How shall we evaluate the subjects that are taught?

Obviously some subjects are more important than others and some are taught better than others, but we have always been prone to add to the curriculum without removing anything. Perhaps it is time for us to establish some rather firm criteria based upon sources similar to those suggested by Tyler, so that we may exercise calmer and better judgment than has been used in the past in deciding what is to be taught.

American education is unique in that there is no national curriculum, and few state curriculum programs are superimposed upon local schools. However, this uniqueness places the burden upon all of us at the local level to consider carefully and intelligently what we should teach in our schools.

Viewpoints from Related Disciplines: Human Growth and Development

DAVID P. AUSUBEL

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WAS on sabbatical leave in New Zealand, working on a problem of Maori adolescent development, when the launching of Sputnik I vastly stepped up the tempo of the seemingly interminable debate on public education in the United States. To be sure, the temperature of the controversy at the University of Illinois during the previous seven years could hardly have been described as cool. But compared to the rancor of the post-Sputnik attacks on education and educators, my colleagues assured me, the earlier quarrels were the essence of sweet reasonableness, and I could therefore consider myself lucky eight thousand miles away, "down under." Unfortunately, however, they failed to reckon with international chain reactions, for within a few months precisely the same conflict was raging in New Zealand and along almost identical lines.

The operation of cross-cultural uniformities in this instance was almost unbelievable: but for a slight change in idiom, the substitution of a few diphthongs for simple vowels, a somewhat different jargon, and a different cast of characters, I could have easily imagined myself back at Illinois. Although one of the main protagonists, Arthur E. Bestor, Jr., was physically absent, he was nevertheless strongly represented by proxy.

To the New Zealand "man in the street" he was by far the best-known contemporary figure in American education; and his supporters—the most vocal critics of educational reform in New Zealand (opprobriously labeled "the play-way") were furiously quoting Educational Wastelands chapter and verse to illustrate the dire consequences that could be anticipated should the schools of the nation fall into the clutches of "Deweyeyed" advocates of "progressive education." In short, it was quite obvious that the dilemma of "What shall the schools teach?" was by no means unique to America.

CHILD DEVELOPMENT AND EDUCATIONAL PRACTICE

What light can the field of human growth and development throw on the issue "What shall the schools teach?" I only wish it were possible for me to list and discuss a dozen or more instances in which developmental principles have been validly utilized in providing definitive answers to questions dealing with the content and organization of the curriculum. Unfortunately, however, it must be admitted that at present our discipline can offer only a limited number of very crude generalizations and highly tentative suggestions bearing on this issue. In

a very general sense, of course, it is undeniable that concern with child development has had a salutary effect on the educational enterprise. It alerted school administrators to the fact that certain minimal levels of intellectual maturity were necessary before various subjects could be taught with a reasonable degree of efficiency and hope of success; and it encouraged teachers in presenting their subject matter to make use of the existing interests of pupils, to consider their point of view, and to take into account prevailing limitations in command of language and grasp of concepts. On the other hand, premature and wholesale extension of developmental principles to educational theory and practice has caused incalcuable harm. It will take at least a generation for teachers to unlearn some of the more fallacious and dangerous of these overgeneralized and unwarranted applications.

Much of the aforementioned difficulty proceeds from failure to appreciate that human growth and development is a pure rather than an applied science. As a pure science it is concerned with the discovery of general laws about the nature and regulation of human development as an end in itself. Ultimately, of course, these laws have self-evident implications for the realization of practical goals in such fields as education, child rearing, and guidance. In a very general sense they indicate the effects of different interpersonal and social climates on personality development and the kinds of methods and subject-matter content that are most compatible with developmental capacity and mode of functioning at a given stage of growth. Thus, because it offers important insights about the changing intellectual and emotional capacities of children as developing human beings, child development may legitimately be

considered one of the basic sciences underlying education and guidance and as part of the necessary professional preparation of teachers—in much the same sense that anatomy and bacteriology are basic sciences for medicine and surgery.

Actual application to practical problems of teaching and curriculum, however, is quite another matter. Before the educational implications of developmental findings can become explicitly useful in everyday school situations, much additional research at the engineering level of operations is necessary. Knowledge about nuclear fission, for example, does not tell us how to make an atomic bomb or an atomic-powered submarine, antibiotic reactions that take place in petri dishes do not necessarily take place in living systems, and methods of learning employed by animals in mazes do not necessarily correspond to methods of learning that children use in grappling with verbal materials in classrooms. Many of the better-known generalizations in child development—the principle readiness, the cephalocaudal trend, the abstract to concrete trend in conceptualizing the environment, and others fit these analogies perfectly. They are interesting and potentially useful ideas to curriculum specialists but will have little practical utility in designing a social studies or physical education curriculum unless they are rendered more specific in terms of the actual operations involved in teaching these subjects. This lack of fruitful particularization, although unfortunate and regrettable, does not in itself give rise to damaging consequences except insofar as many beginning teachers tend to nurture vague illusions about the current usefulness of these principles, and subsequently, after undergoing acute disillusionment, lose the confidence they may have felt in the value of a developmental approach to educational problems.

Much more detrimental in their effects on pupils and teachers have been the consequences of far-fetched and uncritical application to educational practice of developmental generalizations that either have not been adequately validated or only apply to a very restricted age segment of the total span of children's development. Two illustrations of the latter category of highly limited generalizations-the "internal ripening" theory of maturation and the principle of self-selection-will be given later in this discussion. A widely accepted but inadequately validated developmental principle frequently cited to justify general or over-all ability grouping of pupils is that a child's growth and achievement show a "going-togetherness." Actually, except for a spuriously high correlation during infancy, the relationship between physical status and motor ability on the one hand, and intelligence and intellectual achievement on the other is negligible and declines consistently with increasing age. Even among the different subtests of intelligence and among the different areas of intellectual achievement, the weight of the evidence indicates that as a child grows older his component rates of growth in these various functions tend increasingly to diverge.

Keeping these qualifications about the relevance of child development for educational practice in mind, I propose briefly to consider from the standpoint of developmental psychology the following aspects of the issue under discussion: (1) readiness as a criterion for curricular placement; (2) developmental factors affecting breadth of the curriculum; (3) the child's voice in determining the curriculum; and (4) the content and goals of instruction in relation to the organization and growth of the intellect.

READINESS AND GRADE PLACEMENT

There is little disagreement about the fact that readiness always crucially influences the efficiency of the learning process and often determines whether a given intellectual skill or type of school material is learnable at all at a particular stage of development. Most educators implicitly accept also the proposition that an optimal age exists for every kind of learning. Postponement of learning experience beyond the age of optimal readiness wastes valuable and often unsuspected learning opportunities, thereby unnecessarily reducing the amount and complexity of subject matter content that can be mastered in a designated period of schooling. It is also conceivable that beyond a certain critical age the learning of various intellectual skills becomes more difficult for an older than for a younger child. On the other hand, when a pupil is prematurely exposed to a learning task before he is ready for it, he not only fails to learn the task in question but even learns from the experience of failure to fear, dislike, and avoid it.

Up to this point, the principle of readiness-the idea that attained capacity limits and influences an individual's ability to profit from current experience or practice—is empirically demonstrable and conceptually unambiguous. Difficulty first arises when it is confused with the concept of maturation and when the latter concept in turn is equated with a process of "internal ripening." The concept of readiness simply refers to the adequacy of existing capacity in relation to the demands of a given learning task. No specification is made as to how this capacity is achieved-whether through prior practice of a specific nature (learning), through incidental experience, through genically regulated structural and functional changes occurring independently of environmental influences, or through various combinations of these factors. Maturation, on the other hand, has a different and much more restricted meaning. It encompasses those increments in capacity that take place in the demonstrable absence of specific practice experience—those that are attributable to genic influences and/or incidental experience. Maturation, therefore, is not the same as readiness but is merely one of the two principal factors (the other being learning) that contribute to or determine the organism's readiness to cope with new experience. Whether or not readiness exists, in other words, does not necessarily depend on maturation alone but in many instances is solely a function of prior learning experience and most typically depends on varying proportions of maturation and learning.

To equate the principles of readiness and maturation not only muddies the conceptual waters but also makes it difficult for the school to appreciate that insufficient readiness may reflect inadequate prior learning on the part of pupils because of inappropriate or inefficient instructional methods. Lack of maturation can thus become a convenient scapegoat whenever children manifest insufficient readiness to learn, and the school, which is thereby automatically absolved of all responsibility in the matter, consequently fails to subject its instructional practices to the degree of self-critical scrutiny necessary for continued educational progress. In short, while it is important to appreciate that the current readiness of pupils determines the school's current choice of instructional methods and materials, it is equally important to bear in mind that this readiness itself is partly determined by the appropriateness and efficiency of the previous instructional practices to which they have been subjected.

The conceptual confusion is further compounded when maturation is interpreted as a process of "internal ripening" essentially independent of all environmental influences, that is, of both specific practice and incidental experience. Readiness then becomes a matter of simple genic regulation unfolding in accordance with a predetermined and immutable timetable; and the school, by definition, becomes powerless to influence readiness either through its particular way of arranging specific learning experiences or through a more general program of providing incidental or nonspecific background experience preparatory to the introduction of more formal academic activities.

Actually, the embryological model of development implicit in the "internal ripening" thesis fits quite well when applied to human sensorimotor and neuromuscular sequences taking place during the prenatal period and early infancy. In the acquisition of simple behavioral functions (for example, locomotion, prehension) that characterize all members of the human species irrespective of cultural or other environmental differences, it is reasonable to suppose that for all practical purposes genic factors alone determine the direction of development. Environmental factors only enter the picture if they are extremely deviant, and then serve more to disrupt or arrest the ongoing course of development than to generate distinctive developmental progressions of their own. Thus, the only truly objectionable aspect of this point of view is its unwarranted extrapolation to those more complex and variable components of later cognitive and behavioral development where unique factors of individual experience and cultural environment make important contributions to the direction, patterning and sequential order of all developmental changes.

It is hardly surprising, therefore, in view of the tremendous influence on professional and lay opinion wielded by Gesell and his colleagues, that many people conceive of readiness in absolute and immutable terms, and thus fail to appreciate that except for such traits as walking and grasping, the mean ages of readiness can never be specified apart from relevant environmental conditions. Although the modal child in contemporary America may first be ready to read at the age of six and one-half, the age of reading readiness is always influenced by cultural, subcultural, and individual differences in background experience, and in any case varies with the method of instruction employed and the child's IQ. Middleclass children, for example, are ready to read at an earlier age than lower-class children because of the greater availability of books in the home and because they are read to and taken places more frequently.

The need for particularizing developmental generalizations before they can become useful in educational practice is nowhere more glaringly evident than in the field of readiness. At present we can only speculate what curricular sequences might conceivably be if they took into account precise and detailed (but currently unavailable) research findings on the emergence of readiness for different subject-matter areas, for different subareas and levels of difficulty within an area, and for different techniques of teaching the same material. Because of the unpredictable specificity of readiness as shown, for example, by the fact that four- and five-year-olds can profit from training in pitch but not in rhythm, valid

answers to such questions cannot be derived from logical extrapolation but require meticulous empirical research in a school setting. The next step would involve the development of appropriate teaching methods and materials to take optimal advantage of existing degrees of readiness and to increase readiness wherever necessary and desirable. But since we generally do not have this type of research data available, except perhaps in the field of reading, we can only pay lip service to the principle of readiness in curriculum planning.

BREADTH OF CURRICULUM

One of the chief complaints of the critics of public education, both in the United States and in New Zealand, is that modern children fail to learn the fundamentals because of the broadening of the elementary school curriculum to include such subjects as social studies, art, science, music, and manual arts in addition to the traditional three R's. This, of course, would be a very serious charge if it were true, because the wisdom of expanding a child's intellectual horizons at the expense of making him a cripple in the basic intellectual skills is highly questionable to say the least. Fortunately, however, the benefits of an expanded curriculum have thus far not been accompanied by a corresponding deterioration in the standard of the three R's. Evidently the decreased amount of time spent on the latter subjects has been more than compensated for by the development of more efficient methods of teaching and by the incidental learning of the fundamentals in the course of studying these other subjects. Nevertheless, the issue of breadth versus depth still remains because there is obviously a point beyond which increased breadth could only be attained by sacrificingreh Bureau Edni. Psy. Resignarch

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mastery of the fundamental skills; and even if we agreed to maintain or improve the present standard of the three R's, we would still have to choose between breadth and depth in relation to other components of the curriculum, particularly at the junior and senior high school levels. It is at these points of choice that developmental criteria can be profitably applied.

Generally speaking, maximal breadth of the curriculum consistent with adequate mastery of its constituent parts is developmentally desirable at all ages because of the tremendously wide scope of human abilities. The wider the range of intellectual stimulation to which pupils are exposed, the greater are the chances that all of the diverse potentialities both within a group of children and within a single child will be brought to fruition. By the same token, a broad curriculum makes it possible for more pupils to experience success in the performance of school activities and thus to develop the necessary self-confidence and motivation for continued academic striving and achievement. The very fact that elementary school children are able to make significant progress in science and social studies also indicates that myopic concentration on the three R's would waste much available readiness for these types of learnings and thus compel junior and senior high schools to devote much of their instructional time to materials that are easily learnable in the lower grades. In fact, one of the major failings of the secondary school curriculum today is that because it still has not adequately adjusted to the expansion of the elementary school syllabus, entering pupils are subjected to much stultifying repetition and fail to break the new ground for which they are obviously ready.

The relationship between breadth and

depth must also take into account the progressive differentiation of intelligence, interests, and personality structure with increasing age. The elementary school child is a "generalist" because both his intellect and his personality are still relatively unstable and uncrystallized and lack impressive internal consistency. Thus, many different varieties of subject matter are equally compatible with his interest and ability patterns. Furthermore, unless he has experience with many different fields of knowledge and gives each a provisional try, he is in no position to judge which kinds of intellectual pursuits are most congruent with his major ability and value systems. Hence, quite apart from the future life adjustment values of a broad educational background, it is appropriate on developmental grounds for elementary and early high school curricula to stress breadth rather than depth.

Toward the latter portion of the high school period, however, precisely the opposite kind of situation begins to emerge. Interests have crystallized and abilities have undergone differentiation to the point where greater depth and specialization are possible and desirable. Many students at this stage of intellectual development are ready to sink their teeth into more serious and solid academic fare, but unfortunately suitable instructional programs geared at an advanced land vanced level of critical and independent thinking are rarely available. The changes that have taken place in secondary school curricula since the academy days have been primarily characterized by the belated and half-hearted addition of more up-to-date and topical information. Very little has been done in the way of providing the student with a meaningful, integrated, systematic view of the major ideas in a given field of knowledge.

THE CHILD'S VOICE IN CURRICULUM PLANNING

One extreme point of view associated with the child-centered approach to education is the notion that children are innately equipped in some mysterious fashion for knowing precisely what is best for them. This idea is obviously an outgrowth of predeterministic theories (for example, those of Rousseau and Gesell) that conceive of development as a series of internally regulated sequential steps that unfold in accordance with a prearranged design. According to these theorists, the environment facilitates development best by providing a maximally permissive field that does not interfere with the predetermined processes of spontaneous maturation. From these assumptions it is but a short step to the claim that the child himself must be in the most strategic position to know and select those components of the environment that correspond most closely with his current developmental needs and hence are most conducive to optimal growth. Empirical "proof" of this proposition is adduced from the fact that nutrition is adequately maintained and existing deficiency conditions are spontaneously corrected when infants are permitted to select their own diets. If the child can successfully choose his diet, he must certainly know what is best for him in all areas of growth and should therefore be Permitted to select everything, including his curriculum.

In the first place, and refuting this theory, even if development were primarily a matter of internal ripening, there would still be no good reason for supposing that the child is therefore implicitly conversant with the current direction and facilitating conditions of development and hence axiomatically

equipped to make the most appropriate choices. Because the individual is sensitive in early childhood to internal cues of physiological need we cannot conclude that he is similarly sensitive to cues reflective of psychological and other developmental needs; even in the area of nutrition, selection is a reliable criterion of need only during early infancy.

Second, unless one assigns a sacrosanct status to endogenous motivations, there is little warrant for believing either that they alone are truly reflective of the child's genuine developmental requirements or that environmentally derived needs are "imposed," authoritarian in spirit, and inevitably fated to thwart the actualization of his developmental potentialities. Actually, most needs originate from without and are internalized in the course of the child's interaction and identification with significant persons in his family and cultural environments

Third, one can never assume that the child's spontaneously expressed interests and activities are completely reflective of all of his important needs and capacities. Just because capacities can potentially provide their own motivation does not mean that they always or necessarily do so. It is not the possession of capacities that is motivating, but the anticipation of future satisfactions once they have been successfully exercised. But because of such factors as inertia, lack of opportunity, lack of appreciation, and preoccupation with other activities, many capacities may never be exercised in the first place. Thus, children typically develop only some of their potential capacities, and their expressed interests cannot be considered coextensive with the potential range of interests they are capable of developing with appropriate stimulation.

In conclusion, therefore, the current interests and spontaneous desires of immature pupils can hardly be considered reliable guideposts and adequate substitutes for specialized knowledge and seasoned judgment in designing a curriculum. Recognition of the role of pupil needs in school learning does not mean that the scope of the syllabus should be restricted to the existing concerns and spontaneously expressed interests that happen to be present in a group of children growing up under particular conditions of intellectual and social class stimulation. In fact, one of the primary functions of education should be to stimulate the development of motivations that are currently nonexistent. It is true that academic achievement is greatest when pupils manifest felt needs to acquire knowledge as an end in itself. Such needs, however, are not endogenous but acquired-and largely through exposure to provocative, meaningful, developmentally appropriate instruction. Hence, while it is reasonable to consider the views of pupils and even, under certain circumstances, to solicit their participation in the planning of the curriculum, it makes little developmental or administrative sense to entrust them with responsibility for significant policy or operational

ORGANIZATION AND COGNITIVE DEVELOPMENT

The curriculum specialist is concerned with more than the appropriate grade placement of different subjects and subject-matter content in accordance with such criteria as readiness and relative significance for intellectual, vocational, or current adjustment purposes. More important than what pupils know at the end of the sixth, eighth, and twelfth grades is the extent of their knowledge at

the ages of twenty-five, forty and sixty as well as their ability and desire both to learn more and to apply their knowledge fruitfully in adult life. In light of these latter criteria, in comparing, for example, the quantity and quality of our national research output in the pure and applied sciences with those of European countries, the American educational system stands up relatively well even though our school children apparently absorb less academic material. We are dealing here with the ultimate intellectual objectives of schooling, namely, with the long-term acquisition of stable and usable bodies of knowledge and intellectual skills and with the development of ability to think creatively, systematically, independently, and with depth in particular fields of inquiry. Instruction obviously influences the outcome of these objectives—not so much in the substantive content of subject matter but in the organization, sequence, and manner of presenting learning experiences, their degree of meaningfulness, and the relative balance between conceptual and factual materials.

But obviously, before we could ever hope to structure effectively such instructional variables for the optimal realization of these designated objectives, we would have to know a great deal more about the organizational and developmental principles whereby human beings acquire and retain stable bodies of knowledge and develop the power of critical and productive thinking. This type of knowledge, however, will forever elude us unless we abandon the untenable assumption that there is no real distinction either between the logic of a proposition and how the mind apprehends it or between the logical structure of subjectmatter organization and the actual series of cognitive processes through which an

immature and developing individual incorporates facts and concepts into a stable body of knowledge. It is perfectly logical from the standpoint of a mature scholar, for example, to write a textbook in which topically homogenous materials are segregated into discrete chapters and treated throughout at a uniform level of conceptualization. But how closely does this approach correspond with highly suggestive findings that one of the major cognitive processes involved in the learning of any new subject is progressive differentiation of an originally undifferentiated field? Once we learn more about cognitive development than the crude generalizations that developmental psychology can currently offer, it will be possible to employ organizational and sequential principles in the presentation of subject matter that actually parallel developmental changes in the growth and organization of the intellect. In the meantime let us examine briefly how such generalizations as the concrete-toabstract trend, the importance of meaningfulness, and the principle of retroactive inhibition have been used and abused in educational practice.

Many features of the activity program are based on the premise that the elementary school child perceives the world in relatively specific and concrete terms and requires considerable firsthand experience with diverse concrete instances of a given set of relationships before he can abstract genuinely meaningful concepts. Thus, an attempt is made to teach factual information and intellectual skills in the real-life functional contexts in which they are customarily encountered rather than through the medium of verbal exposition supplemented by artificially contrived drills and exercises. This approach has real merit, if a fetish is not made of naturalism and incidental learning, if drills and exercises are provided in instances where opportunities for acquiring skills do not occur frequently and repetitively enough in more natural settings, and if deliberate or guided effort is not regarded as incompatible with incidental learning. Even more important, however, is the realization that in older children, once a sufficient number of basic concepts are consolidated, new concepts are primarily abstracted from verbal rather than from concrete experience. Hence in secondary school it may be desirable to reverse both the sequence and the relative balance between abstract concepts and supportive data. There is good reason for believing, therefore, that much of the time presently spent in cook-book laboratory exercises in the sciences could be much more advantageously employed in formulating precise definitions, making explicit verbal distinctions between concepts, generalizing from hypothetical situations, and in other

Another underlying assumption of activity and project methods is that concepts and factual data are retained much longer when they are meaningful, genuinely understood, and taught as larger units of interrelated materials than when they are presented as fragmented bits of isolated information and committed to rote memory. This, of course, does not preclude the advisability of rote learning for certain kinds of learning (for example, multiplication tables) after a functional understanding of the underlying concepts has been acquired. Unfortunately, however, these principles have made relatively few inroads on the high school instructional program, where they are still applicable. The teaching of mathematics and science, for example, still relies heavily on rote learning of formulas and procedural steps, on recognition of traditional "type problems," and on mechanical manipulation of symbols. In the absence of clear and stable concepts which serve as anchoring points and organizing foci for the assimilation of new material, secondary school students are trapped in a morass of confusion and seldom retain rotely memorized materials much beyond final exam time.

This brings us finally to a consideration of the mechanisms of accretion and long-term retention of large bodies of ideational material. Why do high school and university students tend to forget so readily previous day-to-day learnings as they are exposed to new lessons? The traditional answer of educational psychology, based upon studies of shortterm rote learning in animal and human subjects, has been that subsequent learning experiences which are similar to but not identical with previously learned materials exert a retroactively inhibitory effect on the retention of the latter. But wouldn't it be reasonable to suppose that all of the existing, cumulatively

established ideational systems which an individual brings with him to any learning situation have more of an interfering effect on the retention of new learning material (proactive inhibition) than brief exposure to subsequently introduced materials of a similar nature (retroactive inhibition)? Because it is cognitively most economical and least burdensome for an individual to subsume as much new experience as possible under existing concepts that are inclusive and stable, the import of many specific illustrative items in later experience is assimilated by the generalized meaning of these more firmly established and highly conceptualized subsuming foci. When this happens the latter items lose their identity and are said to be "forgotten." Hence, if proactive rather than retroactive inhibition turned out to be the principal mechanism affecting the longevity with which school materials were retained, it would behoove us to identify those factors that counteract it and to employ such measures in our instructional procedures.

Viewpoints from Related Disciplines: Contemporary Philosophy

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with means and philosophy with ends still has many champions. Some but not all who defend the latter view agree that its acceptance entails support of the further thesis that psychology informs us how to teach and philosophy instructs us what to teach. But our concern is not with the application of the dictum that philosophy deals with ends and science with means, but with its a-priori plausibility and meaning.

Let it first be noted that those who accept this view of philosophy will be disturbed, perhaps even shocked, if they attend to current American and English philosophy. For at the moment most American and English philosophers are engaged in analyzing concepts and are not primarily concerned with the consequences of their analyses for social and political issues. Analysis is not, of course, a completely novel philosophical phenomenon. All great philosophers, from Socrates to Dewey, have concerned themselves with the elucidation and clarification of key terms, and many of these analyses—witness Dewey's explication of the term "interest,"—remain a permanent Part of our educational and philosophical heritage. But it seems that all great philosophers did more than analyze, while current philosophers do nothing else.

Where, it might be asked, do any of the renowned analytical giants commit themselves on any of the basic issues confronting us? Did Wittgenstein hate fascism? Did Carnap ever vote? Does Quine only worry about whether his students believed in concrete or abstract entities? Dewey, Santayana, and Russell have written about suffering and love and the obvious recurrent human hopes and fears, but the books wherein these thoughts are recorded are read with embarrassment by the analytical colleagues of these philosophers. They seem to feel that Dewey, Santayana, and Russell were on a binge every time they declared where they stood as human beings.

Granted that the silence of analytical philosophers about their ultimate commitments might embarrass those who glibly identify philosophy with the defense or elucidation of ultimate ends, the analytical silence might also be considered evidence of the poverty and dispensability of analytical philosophy itself. This, I think, would be a mistake.

In considering the role of analytical philosophy, one must distinguish between the achievements we may expect from a discipline and the dividends we reap from the presence of the gods among us. We cannot dismiss physics just because not every physicist is an Einstein, and we

cannot dismiss analytical philosophy if not all of its representatives have the poetic gifts of a Plato, the vision of a Dewey, or the analytical rigor of a Russell. Actually, to have something novel and important and clear to say about ultimate ends, one needs to possess these and other gifts. Recognizing that they lack these gifts and not identifying the importance of discourse with the importance of its subject matter, many analytical philosophers are silent about their ultimate commitments.

Of course this does not mean that as individuals they do not have deep and firm convictions. Most of them would insist that the primary purpose of education is to educate-to transmit information and develop abilities required for love of, familiarity with, and possible mastery of the greatest and richest intellectual products of Western society. This is inevitably vague. Terms like "rich" and "intellectual" require elucidation. Moreover, this aim would have to be qualified in light of other considerations. No analytical philosopher would want to treat a mentally disturbed child primarily as a candidate for admission into the intellectual tradition, nor would he set himself the task of specifying an educational program for a community without considering its specific economic and political structure. But these considerations call for qualification of the main goal, not for its replacement.

Since I have not canvassed analytical philosophers, the above is no better than an educated guess. But though we may have to surmise about the views of analytical philosophers on education, we do not have to be in doubt about all their commitments about ultimate ends and means. In one sense of the term "commitment" and in one sense of the phrase "ultimate ends," analytical philosophers

commit themselves on these issues every time they analyze ethical terms and particularly the distinction between ends and means.

These commitments are not moral commitments but metamoral ones, that is, commitments about the language of morals. But metamoral commitments frequently have moral consequences. We are confused not merely because of alternative claims upon us but also because of unresolved conceptual problems concerning what to do in order to be right and just. Frequently the attempt to solve these problems requires that we ask what we mean when we say that something is right and something is just. Hence by explicating the meaning of "right" and "good," analytical philosophers are in part removing conceptual difficulties which plague and frequently confuse us. We are all conceptual tool users, and by focusing attention upon the tools we employ, analytical philosophers may improve our output.

Of course it is not simply by discussing moral terms that analytical philosophy contributes to moral and educational theory. For when we commit ourselves to various ends, we must be clear as to what we commit ourselves to, and any lack of clarity will reflect itself in the language we employ. Educators who want to develop the human individual, or who emphasize skills at the expense of knowledge or call for moral instruction must employ nontoxic terms if they want to do more than emote and evoke. It seems fair to say that analytical philosophers have contributed more than their non-analytical colleagues toward elucidation and explication of the terms men use once they begin to specify their

Analysts are therefore no mere clarifiers, though clarification is an important

end. They are critics who frequently force us to revise our goals. Moreover, when an analyst of the calibre of Ryle or Wittgenstein discusses and amplifies some key concepts, he enriches our conception of an entire dimension of human experience. Most readers of The Concept of Mind or Philosophical Investigations will find that their conceptions of the nature of mind, intelligence, reason, and emotion have been challenged and sharpened, if not altered.

To many, all of this will still not be enough. They will insist that something has been left out, and of course many things have. But it is hard to know what relevant aspects of the philosophical job have been omitted.

There are educators who want philosophers to inform us as to whether educational theorists or democrats have ultimate ends. But this is an empirical question, not a philosophical one. Others want philosophers to justify their ultimate ends. But apart from the vagueness of the phrase "justification of ultimate ends" it is important to remember that we justify our actions. It is not the philosophers' job to do that for us. Still others want philosophers to give them ultimate ends. But those who make this request fail to realize how debasing it is. Do they want us to believe that they are bereft of ideals and in need of a philosophical transfusion?

If what is demanded is that a philosopher inform us merely as to the theoretical necessity of ultimate ends or as to the procedures that we may all legitimately use for the justification of our ends, then a philosopher is invited to analyze. Actually, that is what contemporary analytical philosophers have been doing all along. Educators who read analytical philosophers might find some of the discussion technical and confusing and irrelevant

for an immediate clarification of their policy problems, but let it be noted that this is an inevitable consequence of paying detailed attention to all the ramifications of all relevant issues. Those who find analytical philosophy removed from their concerns will also find the discussions of Aristotle and Kant of little value. Their disagreement is not with analytical philosophy, but with philosophy itself.

But not all issues in educational theory demand abstruse and detailed philosophizing. To handle certain questions raised about educational policy, one need not have the technical competence and dialectical skill of a Quine or the genius of a Wittgenstein. A certain amount of analytical ability reinforced with a dose of common sense, even if it is not of the robust Johnsonian type, will suffice to detect the vagueness and ambiguity embraced by the questioner.

Thus if we are asked whether students ought to acquire knowledge or have their needs satisfied, we may point to the patent truth that the disjunction is misconceived and each disjunct unclear. The word "need" is an ambiguous one and capable of both a direct and a relational employment. Used in the former sense, it applies to anything that is desired, in the latter, to any condition which is necessary for a goal or an end. Thus if we say that someone needs love we may mean either that he desires it or that being loved is a necessary condition for the accomplishment of his aims. In both

senses, students need knowledge.

That knowledge is required for the achievement of most life goals is truistic; that students natively desire to know has been stressed by many since Aristotle. Inasmuch as students need knowledge, a contrast between knowledge and needs is misleading. But on any account, it is im-

portant to remember that an appeal to students' needs is an appeal to an unstable base for educational policy. The needs of students vary; some of them are not worthy of consideration, many of them conflict, most of them change. Though it would be disastrous to set out to frustrate students, it would be fatuous to attempt only to satisfy them and their needs.

Neither is it fruitful to ask whether we ought to give students a moral education. Each time we praise an act or blame another, label a person kind or cruel, we are voicing our approvals or disapprovals and in part are influencing those we address. To influence action and to change approvals is to begin the job of morally educating, not, of course, to finish it. For to educate morally we need to do more than merely voice our approvals. We must also give some reasons in support of our attitudes and show that the reasons we give can be generalized to other attitudes as well. Alternatively, if reason A sanctions x which we approve and y which we disapprove, then a reorganization of either our approvals or our reasons is required.

Evaluations are pervasive, but moral systems are rare. In point of fact, moral systems are for the most part sophisticated products of reflecting moralists. To attempt to teach morals by inculcating subtle distinctions of a Kant or a Mill is to attempt the perverse. It is equally ill-founded to think moral judgments are baseless unless they are derived from the main postulates of a moral system. Moral systems, like all other systems, must be supported by non-systematic considerations. Unless there are acts which we consider wrong and others which we judge right, independent of the system, there is no ground upon which to accept or reject the system.

Not merely certain questions but also some answers to educational questions are misleading. It is not instructive to be told, for example, that the aim of education is the development of human individuals. All human institutions in some sense or other develop human individuals. More generally an aim that is invariant to all human institutions cannot be given as the aim of any single one. If we are told that all human institutions ought to maximize human happiness, we may nod assent. If we are asked to sponsor an institution to promote human happiness, we merely find that our momentary happiness or mirth is increased.

Equally comic is the story which ends on the note that education ought to be a preparation for life. It is also an evasive one. As Dewey tirelessly pointed out, while students are in school they are living, not in limbo. Then again those who ask for a preparation for life usually mean a preparation for adjusting to or challenging currently powerful economic and political institutions. But the problems raised by these institutions vary, and hence education based on them is as insecurely supported as education based on students' needs

Properly qualified, it may be granted that education is a preparation for life or the world. But to grant that point is not to insist that educational institutions need teach students to drive cars, or dance, or mow a lawn. The skills prerequisite for driving, dancing, or mowing lawns can be and are easily developed outside of school facilities. And in granting that education is a preparation for life, we cannot forget the obvious point that art objects, science books, not to mention the heavens and the earth, are as natural as the most hard-boiled product of Madison Avenue. But once we qualify, we note that to prepare a student to deal

with the world is to prepare him to deal with everything and hence with nothing in particular. A listing of desirable specific skills, powers, and abilities is sometimes more helpful than an overelaboration of a general program. And on any list such as this will be found the power or ability to recognize a bogus problem and the capacity to solve genuine ones. But it is a mistake to identify these powers with all the abilities prerequisite for competent thinking. As Ryle and many others have pointed out, we cannot identify all human thinking with problem solving. Neither can we simply equate knowledge with hypotheses that have been used effectively to solve problems. For to use a hypothesis to solve a problem is, among other things, to employ it predictively. Unless we are able to say that the prediction has been confirmed, we cannot say that the problem has been solved. Confirmation is logically prior to a theory of problem solving. Finally, it is of moment to remember that no important scientific problem can be understood by those who are bereft of scientific information, and no great human problem can be felt by those who lack human sympathy and compassion.

To these vague questions and positions the relatively blunt answers I have given may suffice. But the answers are au fond as unsatisfactory as the questions themselves. They contain such misleading terms as "knowledge" and "need" and leave unresolved a host of more sophisticated issues about knowledge and values and the aims of education.

It is in the hope of breaking the circle of blunt answers to vague questions that analytical philosophers have begun contributing to educational theory. Thus far, most of the contributions have been oblique. Even a brief perusal of a volume

edited by J. Scheffler¹ will suffice to note that most contributions to analytical educational theory are not contributions uniquely relevant to educational theory. But the mere presence of the Scheffler work and a volume by D. J. O'Connor² is proof that even an oblique contribution is a contribution, and their presence supports the hope for future and more direct results. Moreover, Scheffler's introductory essay is an invaluable guide for those who want to know what to expect in the future. To his words I add a note of caution.

Like ancient Gaul, the land of analytical philosophy is in three parts divided. In one reside those who attend primarily to ordinary language, and in another those who attempt to discern the main outlines of the nature of scientific knowledge. Finally we have a section reserved for those who attempt frequently, by constructing artificial languages, to analyze traditional philosophical concepts.

The divisions between these three sectors are not sacred. There are many who roam and who find an extended stay in any one section enervating. On the other hand, from all reports the air is brisk and exhilarating in all parts. But the unity in the land of analytical philosophy is not a deep one. Products and even respect are not frequently exchanged between its sectors.

In light of these divisions it is a mistake to search for a simple summary of the results of analytical philosophy. There are no simple analytical truths or discoveries; nor should we expect such truths in the future. Analytical philosophers cannot supply educators with decalogues for the employment of language

¹ J. Scheffler, editor, Philosophy and Education (Boston: Allyn and Bacon, 1958).

²D. J. O'Connor, *The Philosophy of Education* (London: Routledge and Kegan Paul, 1957).

or dictate the form of educational theory.

If not by dictation, how can analytical philosophy aid? The answer that educators concentrate upon such concepts as teaching, drill, skill, aptitude, subject matter, and interest and invite philosophers to aid in their elucidation is very appealing.

Analytical philosophy has made its greatest contributions when it attempted to analyze and explicate terms and concepts that play a crucial role in nonphilosophical contexts. It is no accident that the best work in analytical philosophy has been done by those who have concentrated upon the elucidation of scientific or ordinary language. The availability in such languages of rich and important concepts cannot be denied. By analogy it might be maintained that the marriage between analytical philosophy and educational theory would be most fruitful if the latter's dowry consisted of its con-

But the analogy is not perfect. Educators cannot simply analyze or be con-

cerned with the analysis of a few technical educational terms. Professors of education are expected to be clear, while chemists are not, about the knowledge of value and the value of knowledge. Their social role demands that they be clear in the employment of terms which are not uniquely educational.

This merely increases the relevance of analytical philosophy for educational theory. An analytical philosopher not only can aid in the elucidation of educational terms; his general theories and general views on most philosophical issues will bring extra dividends to education. Of course an analytical philosopher contributing to education will sometimes emphasize his general philosophical theory and sometimes concentrate on a particular educational problem. Moreover, an analytical philosopher contributing to education must be clear on the ends of education. But his clarity on the last point is not to be demanded on the grounds that he is a philosopher. It is to be expected because he is an educator.

Viewpoints from Related Disciplines: Sociology

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ROM time immemorial and in every society around the world, mankind has been threatened and haunted by conflicting and contradictory dilemmas of adjusting his life conditions to a world in transition. He is literally and ofttimes caught between the decadent and dying forms of social living, the exploding and exciting social problems of the present, and the unfolding, frightening, mysterious forms of social structures that are pressing in upon him. The problems of a changing society challenge both man's conscience and his consciousness as he feels the multitude of complexities and demands for reshaping his social institutions-family and home life, state and government, religion and church, industry and business, education and schools.

What are the next steps? What parts of our traditions should and must we conserve? What parts need to be modified, reinforced, or even discarded? These are some of the questions that any and all peoples must face as they attempt to move from the past, through the present, and toward the future.

The present crisis in American education reflects the uprooting of societal forms. The American people have never been more disturbed; they have seldom manifested greater restlessness and excitability. Indeed, they have never before

shown so much alarm and such great personal anxiety over threats to the integrity and effectiveness of free public education.

The knotty question, What shall our schools teach? appears to tie in with a series of threats about which American people are divided: the problem of segregation and discrimination; the issues of academic freedom; the debate about the nature of effective learning in a democracy; the question of religion in education without the dangers of indoctrination; the issue of whether schools can and should become agents of social change.

Today the most immediate problem in the total picture of public education is segregation and discrimination; that is, what can be done about the barriers between groups. How can they be broken down and disposed of once and for all? The problem here is not confined to race relations—whether Negro and white children should go to school together-but engulfs the whole field of societal relations: interpersonal relations including segregation by age-grouping, and discrimination between the sexes; intergroup relations, including, in addition to race and religion, discrimination of rural-urban groups, intersectional conflicts, and segregation of social classes; and international relations, that is the treatment of nationality groups, and the continuation of barriers hampering "interpeople" understanding.

Another issue that threatens the future of education is the attack upon academic freedom. Academic freedom can manifest itself only if Americans are exposed to all aspects of every controversial issue. Moreover, schools must be encouraged to teach respect for individuals who hold different opinions; a democracy, a free society, can exist and grow only if enough intellectual and psychological space is allowed for individuals to hold a variety of convictions, no matter how unpopular they may be.

Next, there is the issue concerning how best to set up schools where peoples of all ages learn in such a way that they become active, informed, responsible citizens. Fortunately, education psychologists are on the threshhold of new learning theories which stress group learning in which one learns to solve problems through group experiences. With this approach, what the schools shall teach will become more apparent. The school curricula will stress that we must think out our problems together, rather than fill our minds with discrete categories of encyclopedic facts.

Finally, there is the threat from pressure groups, forces, and power figures controlling the schools. This is a vital issue. Who shall run our schools? Who will make the decisions? Shall the people be the final judge? In a democratically free society, implemented by public education, there is need for a fresher conception of public education in which questions can be raised concerning the legitimacy of schools' becoming active agents of social change and social reconstruction.

A SOCIOLOGICAL APPROACH

Perhaps the most persistent challenge to human society is the understanding of social change. Man has searched every aspect of the world in which he lives; he has even inquired into the mysteries of his mind and body as well as into the workings of his gods for adequate explanations. Advancements in science and technology and the growth of knowledge in general have not substantially reduced the complexities of these recurring questions: How and why does society change? In what direction is society drifting?

Social change—the emerging patterns of social relationships—is inevitable and continuous. What one normally sees in a society is only a small part of the changing structure which he occupies, but it is enough to influence profoundly his conception of the directions and rates of change. No matter how one defines change, or even perceives it, it is the changing nature of a social structure that produces pressing social problems that make the living together of diverse peoples so disturbing.

There are those who believe that contemporary social change has become so alarming that we must do something now. These persons feel a sense of urgency about life conditions. There are others who see great dangers in problems brought on by such social changes as nuclear radiation, the H-bomb, longrange ballistics, biological warfare; many are resigned to the inevitability of doom. Too many people are apathetic about all these "goings on"; they have a what-can-I-do-about-it attitude. A few traditionoriented die-hards, operating under the guise of patriotism, insist on looking backward and are dedicated to resist any

and all forms of change in the social structure. On the other hand there are people who think they see some hope for the future and are probing into the subtleties of changing social structures and assessing the effects of social innovations upon the vast and complex array of relationships.

Rapid changes in technology, moral mandates, and legal prescriptions, and great shifts in populations have produced widespread social problems in every phase of living: education, family life, religion, commerce, health, and welfare. In regard to education, there is widespread feeling that our schools are not measuring up to the needs of society.

Any social problem, including problems of education, may be conceived as containing at least four variables:

1. It is shared by a sizable portion of

the population.

2. Although not inherently good or bad, it is perceived by the people as a threatening, evil, even frightening state of affairs.

3. Judged on the basis of consensus, it is not in accord with ideals, objectives, and values of the society, and accordingly is undesirable.

4. Almost everyone feels that the condition should be remedied or eradicated.

Thus, when one addresses himself to the problem, What shall our schools teach? he is approaching a prevalent social condition that must be viewed as an important phase of societal living. The dimensions of educational problems are the result of the web of interpersonal and intergroup relations that enmeshes our society.

Now the problems of education in respect to what we ought to teach our children must not be identified statistically; nor should the problem be viewed as the "pathologies" of individuals, families, or social groups. To be sure, certain individuals and groups may have private notions about life conditions that they believe to be crucial, but one cannot speak of them as social unless the conditions are shared by all segments of the society. Thus, social problems, and indeed problems of education, emerge from changes in social interaction—the relationships between societies as well as between segments of a particular population. They are manifested in changes in relationships between social classes, religious bodies, ethnic, nationality, and racial groups, labor and management groups, occupational groups, residential areas, and sectional groups. In other words, problems of education are collectively produced out of interaction resulting from widespread shared feelings of restlessness, dissatisfactions, ever-changing sensitivities, and aspirations of the

people.

It should be reiterated that judgment of the affairs of schools as undesirable, even by folk affected, does not create an educational problem; there must be a shared concern. For example, Puerto Ricans may object to English being taught to their children; Southern white people may violently oppose Negro teachers and racially mixed schools; Amish people may be against public education; intellectuals may oppose parochial and private elementary schools, but these situations may or may not become social problems. It depends upon whether they carry a threat to what the people as a whole believe to be their ability to survive; whether they represent in the minds of the people occasions for collective defense and protection; indeed, whether the conditions are such that citizens cannot sit idly by and let them alone. There is the feeling of a need of collective determination for action. Accordingly, people enter into debate and engage in crowd and mass conduct in

search of a way out.

All of this implies that fermentation in education—more specifically the problem of how we can set up our schools and teach people of all ages the appropriate experiences, stressing truth, technical competence, and social consensus—becomes the signal problem of how to maintain and strengthen free education in the context of social revolutions.

If we are to achieve democracy through education, it is imperative that schools be freed to investigate and to hear the dissenters; democracy cannot grow without freedom. Free education calls for dedicated adherents to the conception that education is the power through which a society may attain the goals of "the good life"—democracy and freedom.

FERMENTATION IN AMERICAN EDUCATION

The major difficulty regarding the direction and dimensions of social change is that few if any persons of a society really know what is best or worst for that society's future. Somewhat paradoxically, however, each generation tries to perpetuate what it thinks to be the very best of itself. In actuality, when confronted with a widespread condition of social unrest, such as that which characterizes the present crisis in American education, societies attempt to start from the beginning and to recapitulate the "best" of their histories—to relive "the good old days."

Unfortunately, educational institutions, like all other social institutions, generally accept as their primary function and role to help perpetuate what the people of a society really think and feel it represents. Even though what is perpetuated may be very little more than outworn legends, most social institutions build them into their structures at the expense of searching for truth and reality.

With but a few notable exceptions, the chief spokesmen for education have been philosophers of history, speaking from their own time-space vantage points, using images of themselves and suggesting remedies that presumably will solve educational problems. Each thinks of health, welfare, beauty—"the good life," using his self images and claiming that

his is the correct interpretation.

Few educational leaders have been willing to question, suspend judgment on, lay aside, or reject entirely their own clichés and platitudes or those of the selected authorities who have preceded them. There is the tendency in educational circles to develop an intellectual aristocracy of educational statesmen who occupy positions of unquestionable prestige, influence, and power in decisionmaking processes. The views of those who achieve top status in education, determine not only how the school system is to be organized and run, but in addition what is to be taught, to whom, by whom, when and how, and for what manifest or latent objectives. We tend to defer to and depend upon the judgments of this educational elite.

But what kinds of people are they? Many are altruistic individuals and dedicated scholars; some hide behind the myth of objectivity. Most have moved from the masses, despite the fact that they "love" them (but usually from a distance) and want to help them toward freedom. Some view social change as so tragically chaotic that the world is hardly worth saving, at least there is so little education can do about it anyhow. On the other hand, there is an increasing

number of scholars who think it unwise to assume that the state of affairs in the world is so hopeless that doom is inevitable. This group is searching for new frontiers in education and new theories, testing out old and new methods, and trying to adapt educational policies and practices to mid-twentieth century needs and demands for social order.

1 .

Increasingly, parents, civic groups, vested interests, and organized pressures -in fact, every segment of society-are demanding that the schools teach young people the fundamental democratic values upon which this nation was founded. Apparently they are beginning to feel that the basic objective of "schooling" is the extension of a shared concern in most if not all areas of living. The people seem to want their children to be taught respect for the basic freedoms, human rights, and democratic political procedure; they want to reduce the barriers to achievement of the necessary shared concern that have hampered the progress of American society. The people, especially parents, are debating such issues as:

How can children be taught concern for others? Should rewards, punishment, shame or guilt, or combinations of these methods be used?

Is segregated education best for children? Can it be democratic? Are segregated schools for gifted or handicapped children antidemocratic? Does the present age-grade system enhance segregation, thereby helping or hurting the education of children?

Must all children be taught to approximate equality of status, power and income as an essential of democracy? Should there be segregated schools for upper-class, middle-class, and lower-class children? Are parochial and private schools anti-democratic? Should schools be desegregated segmentally, immediately, gradually, or never? Can we have an apartheid in education and and remain a democracy?

What kinds of education prevent or correct superficiality, suspicion, sexual constraint, over-conformity, reliance on force, egocentricism in children?

What can schools do about the anti-social gangs, snobbish cliques, undesirable peergroup formations, and "blackboard jungles" that entice children to seek acceptance?

Why do so many children feel superior to others because of their greater knowledge, their talents or taste in art, music, speech, dress, and their social class, race, ethnicity, or religion? What can and should we do about this?

Why are many children unable to read? Why, after displaying reading readiness at home do they lose it when they start to school? What can and should the schools do about it?

Why do some children find it painful to think in abstract terms? What makes science so difficult for them? Is it the nature of the subject or the manner in which it is taught?

Who shall be educated and by whom? Who shall decide? Should the decision rest entirely with school personnel?

Are schools properly organized to do the job expected of them? Why are there so many conflicting ideas among the experts as to how schools should be run? What can be done to resolve the conflicts?

This list of problems and issues could be extended indefinitely. For convenience, it might be condensed under three captions: (1) too many of the graduates of public schools are scientific illiterates, (2) schools do not seem to be able to meet the problems of changing human relationships, and (3) conventional education as it exists today is plainly inadequate to meet mid-twentieth century needs.

Scientific Illiterates?

There is widespread concern over the present shortage of scientific manpower in the United States. One of the stop-gap remedial measures being adopted in virtu-

ally every school district of the nation is a series of "science courses." However, science courses in elementary and secondary schools, in colleges, and even over television channels will not alone resolve the difficulty. We have recently witnessed the debacle of a well-advanced culture in Germany, which for two centuries or more afforded the "very best" in science education, only to have it boomerang into the faces of those who invented the cult of "scientific positivism." The entire world was affected by this "spirit of science," which German students learned so well. The German system of education, despite the provocative philosophies upon which it was constructed, began to deteriorate at the turn of the century when German educational institutions, especially the universities, came to be regarded as centers of scientific research, and teaching was considered incidental to the role of the German scholars. Accordingly, German youth suffered; they were deprived of the type of education which would enhance their sensibilities of a shared concern for others; they were denied the opportunity to develop a unified view of nature, man, and society.

It is unfortunate that some American educators have turned their attention almost entirely to the past. They have created a movement in education to recapture old European patterns of education, especially the rigorous thoroughness and the "high standards" that characterized the German universities.

In response to this backward look, our colleges and secondary schools are emphasizing increasingly a narrow specialization of science into sub-fields, discrete category hierarchies, and atomistic schemata. The tendency is to shift attention from students, life conditions, and changing social structures to a proliferation of

science courses-subject-matter mastery and technical competency. Many socalled liberal arts colleges are moving toward the building of curricula for vocational "career" preparation-to train the student for his first job; to fill the immediate manpower needs of a nation being threatened from many directions. This preoccupation with specialization and technical competence tends to develop the naive notions that learning is a special quality of certain kinds of people; that science and technology will save us; indeed that the kinds of citizens required for the contemporary world must possess high levels of scientific sophistication.

The graduates of our colleges and universities may be scientific illiterates, to be sure, but present proposals do not appear adequate to develop a scientifically oriented population in our society. A scientifically literate person is one who is prepared for effective democratic participation and for assuming morally responsible leadership roles, willing to apply his technical competence for the progress of society. The signal problem of education for a rapidly changing urbanized and technological society is to educate a generation of articulate, morally responsible citizens who are willing to pool their knowledge for freedom and the dignity of human beings.

Changing Human Relations: Fact or Fiction?

The explosion of knowledge during the past three centuries has constituted a tremendous impact upon man's ways of thinking and acting. In effect, traditional ways of behaving are being challenged by new horizons and possibilities of living. The present generation is caught between the old and the new, but the new is always threatening because people do not have the cultural prescriptions and

social definitions of how to handle new forms of social relations. There is a tendency of society to resist emerging forms of social relations; any extension of knowledge in this field is met generally by apathy and sometimes vehement opposition. In our society the resistance to changes in relationships between social groups manifests itself by a strong flavor of anti-intellectualism for which labels are invented: "socialistic," "impractical," "eggheadism," "utopianism," and so on. Virtually every effort to understand, induce, and direct social change in human relationships has been met with loud objections.

If we are to achieve an orderly society it is imperative that young people be taught how to recognize and understand the nature of changes in interpersonal relations and social structures: how to remove barriers, and indeed how to freeze desirable change once it has been induced. Furthermore, the new generation must be able to discover and to remove unreasonable fears or phobias that result from knowing of the inevitability

of change.

Phobias that emerge from anticipating and directing social change (creeping socialism, social planning, for example), especially in human relations, have had the effect of "watering down" the standards of social science in education. On the other hand, some laymen as well as professional educators are in opposition to the democratic slogan "Education for all." Some are projecting experiments to separate the gifted from the mediocre. Others are developing programs, curriculum revisions, and instruction and methods which will make education too hard for selected social layers in society. A serious, close look should be taken at the science of education. We need to isolate elements of social structures and

to identify factors and processes, in order to separate fact from fiction. We need to select those things that make for adaptive changes in human relationship in an explosive social world.

Conventional Schools Incompetent?

There is widespread and growing restlessness among parents, laymen, and even teachers and school administrators concerning the way we are organized to "keep school." Many citizens appear to be unhappy about recent educational policy decisions; some are attacking legislative bodies and authority figures on local, state, and national levels. There are increasing manifestations of dissatisfaction with the role behavior of teachers and administrators. Almost every facet of society is growing more and more sensitive about the philosophies and theories upon which our schools operate. The number who feel that schools are inadequate as they are now being run appears to be growing.

Perhaps the most general feelings of rejection are focused upon John Dewey and his disciples: William H. Kilpatrick, John L. Childs, Bruce Raup, Boyd H. Bode, Gordon Hullfish, and a host of others who have been identified with the Progressive Education Movement.

The major error of the critics of progressive education is that each spokesman assumes that he is the one who knows what is really best for a changing society. Moreover, almost every antiprogressive education pronouncement, however loud or subtle, reflects not only a kind of intellectual sophistry, but also an incredible naïveté about the true spirit of John Dewey the man. "Deweyism" is indicted for making education too enjoyable and easy for young people. This, the critics claim, is the reason "Johnny can't read." In addition, progressive education is accused of causing the revolt of youth-juvenile delinquency and other forms of deviant behavior. The corrupting influence of these progressive childcentered dreamers, the critics say, is no less than an intrigue initiated by Dewey and his henchmen. They infiltrated their hocus-pocus into teachers colleges, thereby creating such social ills as increasing divorce rates, the lagging of science, failure to keep up with the Russians, and sometimes problems of international relations, inflation, and political corruption. To support their position, they have even dragged in a number of irrelevant slogans and labels which presumably clinch their arguments and demands for "getting back to fundamen-

Needless to say, these arguments are little more than distortion of John Dewey's ideas and philosophy of education; many of them are just plain nonsense. Dewey, like a great many other late nineteenth and early twentieth century philosophers of history, simply projected what he believed to be a valid criticism of educational conditions of his time.1 There can be little doubt in the minds of students and of laymen, especially those who possess a sense of historic perspective of the unfolding of American education, that Dewey's contributions to what the schools should teach have been of inestimable value, particularly to educators who are genuinely concerned with the dynamics of educational structures and processes.

In this connection, Handlin observes:

Our schools are more adequate now than they were sixty years ago. The task of mak-

¹ For an excellent discussion of John Dewey's place in the development of American education, see Oscar Handlin, "Rejoinder to Critics of John Dewey," The New York Times Magazine (July 15, 1958), pp. 13, 19-20.

ing them fully adequate is nevertheless far from complete. But it is more likely to be pushed forward by extending rather than narrowing Dewey's vision of freedom in which to learn to live in the modern world.²

Educators must not be blinded by the barrage of ignorant and sometimes non-sensical verbiage of critics, many of whom have read little of Dewey and other authoritative figures in education. Dewey, among others, sought to carve out a sound philosophical and social foundation for an effective educational program for American youth.

One should not infer from the above statements, however, that there are no indicated needs for a reconstruction of our educational program. In fact there are obvious gaps in theory and methods -gaps not anticipated by Dewey and his students. Nevertheless, it is a disservice to education to repeat the cliché that our schools are incompetent! Any knowledgeable person is quick to admit the gross inadequacies of school systems, and if the problems are to be defined and the inadequacies isolated for study, removal, and control, we must cease looking for scapegoats. What we need is a thoroughgoing, systematic appraisal of every facet of the educational system, viewed in relation to changing social structures.

WHAT SHALL THE SCHOOLS TEACH?

This is a tough question for which a ready-made answer is not yet known, nor does one appear to be forthcoming in the immediate future. Accordingly, if one is asked what we ought to be teaching our children, the only honest answer at this point is, "I don't know."

However, the question does lend itself to an exploratory treatment. Deciding what the schools shall teach is connected

² Ibid., p. 20.

with a series of both independent and dependent variables. The discriminating factors, as well as the significant attributes of an effective curriculum for our schools, are interrelated with an almost endless series of other conditions. Moreover, before discriminating variables can be isolated and studied, there are important preliminary and corollary questions to be explored:

What is, and what will be, the nature of social structures in which people will be called upon to interact with other people?

What kinds of moral mandates are becoming imperative for cultural integration and societal balance?

What is the nature of the changing characteristics of people who need to be prepared for living together in emerging social structures? What immediate and long-range changes in attitudes and values must people learn in order to survive?

What perceptions and conceptions do educators have of the educational potentialities of the children, young people, and adults whom we propose to teach? How valid are these conceptions? What perceptive conceptual innovations need to be stressed by those who want to teach others?

What is the nature of the motivations of those whom we teach? What are their views regarding levels of living?

Definitive answers to the above questions that undergird, What shall the schools teach? do not promise to be forthcoming until educators and social scientists pool their efforts in the interest of establishing a long-range, continuous program of social and educational research. Each question will have to be subjected to the methods of science—observation and experimentation. Answers to any one of them or any facet thereof must be considered as tentative.

Despite the fact that we may not know what our schools shall teach, there are immediate, practical, urgent problems

that cannot be held in abeyance until the researchers come up with the *right* questions and answers. It is upon this assumption and within this spirit that we might address ourselves to shedding light upon and providing clues for approaching the problem.

Problems of High Priority

The most pressing problem at the moment concerning our schools is: What kind of world may we expect during the latter half of the twentieth century? This new, exciting world demands immediate attention. Our schools are charged with the responsibility of educating the young people who will have the privileges and responsibilities of making and shaping the new world. However, most of these youth suffer from mental conflicts, ideological dilemmas, and a genuine vagueness about their lives, their country and their world. Moreover, they are rather hopelessly enmeshed in problems of fact, theory, and moral and ethical values. They do not understand the meanings and social consequences of such diffuse terms as "brotherhood," "a practical plan," "bad and harmful," "impractical," "radical," and "creeping socialism." Can these concepts be adequately handled as factual, theoretical, or moral?

For example, when is one a "gradualist," "moderate," or "radical" on problems? It is imperative that young people understand the "facts" of race, the theories of race relations, and the ethics and morality of the problem. Without such knowledge and understanding, how can one help to shape the changing social structures that have destroyed several societies? Myths, legends, and distortion of the meanings and social consequences of race relations remain America's number one problem. When is a suggestion for action in race relations reasonable? Is

"Go as fast as you can, but as slow as you must" the right thing to teach our children?

The great deterrent to social progress throughout this country has been the fear of public reaction to programs for improving the status of minority groups. This fear still exists in the minds of far too many Americans. Some declare as "fact" that the social consequences of changing social relationships are uprisings, bloodshed, miscegenation and the like. For instance, those who are dedicated to resist changes in social structures maintain that if Negroes were allowed to vote freely in Georgia and Mississippi there would be a "reign of terror" in the land. "Intelligent" economists have been teaching as fact, supported by outworn theories, that restricted covenants are necessary to prevent property devaluations in a neighborhood.

Another pressing problem in determining what our schools shall teach relates to domestic issues involving human rights and freedom. We stress to our young people that what we do at home is not a proper subject for international concern. Here we are following the tragic path of Hitler in Germany and apartheid in South Africa, both leading to the extinguishment of human rights. Our wisest statesmen and legal authorities, however, emphasize the fact that certain human rights and freedoms are fundamental to a civilized society, and that disregarding these rights affects the peace and security of people everywhere. Freedom is not solely a national affair

Liberal Education versus Vocational Education

The issue of liberal versus vocational education is no longer an important one, if it ever was; the debate is fruitless and adds very little to what we ought to be teaching our children. The dichotomy between academicians and professional and vocational workers is neither real nor useful to the development of a science of education. The basic objectives of education of each are the same: the problem of changing personal behavior and group and institutional relations to prepare individuals for societal living. Accordingly, the sole objective of education cannot be confined to training individuals for jobs or careers. Who is able to predict what the job requirements of a chemist, biologist, engineer, or physician will be in 1975? However, teachers cannot ignore the fact that every adult in this society will be required to work; the more competent the individual, the greater his contributions to the world of work. On the other hand, the worker must play a series of socially and morally responsible roles: citizen, legislator, buyer, seller, and so forth. To carry out these roles everyone -housewives, lawyers, clergymen, teachers—needs both liberal and vocational knowledge and skills.

CONCLUSION

Any approach to the problem of what our schools shall teach must accent the positive rather than try to locate forces and individuals responsible for our restlessness. American education has come a long way, aided and abetted by such intellectual giants as Froebel, Horace Mann, Russell, Dewey, Hutchins, and Conant. Progress will come from building upon the foundations laid by these scholars.

The extension of education is now accepted; we are in position to take a long look at the work we have done, at what we are doing now, and at what lies ahead. The crucial problem is how can we make the best use of the resources,

opportunities, and challenges before us?

It must be remembered that the goal of democratic education is to help people see more clearly the appropriate role behaviors they must learn for full and unlimited participation in a democratic society. We must assist youth not only to identify the goals of democracy, but in addition to assess them for extending freedom and human rights in a democratic society. It is the problem of the schools to help youth to broaden and improve the quality of their work in the interest of public policy; they should be sensitized to the expanding social roles and new definitions of self that will be demanded of them in the new society. Moreover, schools must seek the assistance of other organizations and agencies that have a vital stake in our democracy. We need to broaden and improve educational methods for taking advantage of the large audiences willing to lend their resources for improving what and how we teach our youth.

The determination of what our schools shall teach calls for a close examination and re-evaluation of our entire social structure in terms of personality-satisfying goals attainable in a democracy. More important, we as teachers must realize where we stand as professionals and citizens if we are to teach students realistic thinking as a substitute for fantasy and dreaming.

The task of education, both sociologically and psychologically speaking, is to locate ways to effect transitions through the disturbing changing social structures with the least shock and the greatest dispatch. Thus, deliberate processes of public education must be created to implement the spread of moral and ethical influences in the everyday life of the nation. To accomplish these objectives, particular stress must be given to the many and complex elements of human relations-those associated with living, working, playing, and worshipping together. In order to survive the onslaught of social revolutions, the schools must teach and educate individuals for carrying out with others, with personal dignity, the moral responsibilities of a common citizenship. Finally, in respect to What shall the schools teach? there is no more important task facing Americans, as citizens, no greater challenge to teachers, than that of helping to bring to reality democracy and freedom.

Viewpoints from Related Disciplines: Learning Theory

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HE psychologist concerned with learning theory, at least as long as he keeps his professional cloak wrapped tightly about him, is likely to be embarrassed by the question, What should the schools teach? His specialty is oriented toward the discovery of how organisms learn rather than what they learn. When his functions are applied to the urgent practicalities of the school, they are usually much more like those of the technician or consulting engineer than like those of the normative or goal-setting philosopher. Issues involving "should" or "ought" are unfamiliar to him, and his methods, aimed at the achievement of generalized description rather than discrimination among values, are more assertedly than admittedly irrelevant to the task of structuring an ideal curriculum.

Nevertheless, if this apologia is kept firmly in mind, there may be some justification in permitting a learning theorist to think aloud about the character of the ideal curriculum. After all, it is impossible to observe the learning process without also observing the learning of some content. Moreover, a point often overlooked in considerations of formal learning theory is that its basic contentions and the experimental work done in its name are consistently devoted to behavior of a generally "adjustive" sort.

That is, they are concerned with the individual's acquisition and modification of problem sensitivities and problem solutions-how he learns to define the conditions of his life (including those within himself) with which he must cope and to develop behavioral mechanisms for dealing with them. These topics may not be entirely foreign to curricular issues. Finally, if the learning theorist allows his professional observations and cerebrations to penetrate his life as citizen, as father, and as person, he is likely to generate some reflections that may win brief attention from the curriculum expert and the educational philosopher. It must be remembered, however, that in discussing normative questions of the curriculum, a learning psychologist may be levying on his field of expertness; he is not practicing within it.

SUBJECT MATTER, MODELS, AND MOTIVES

Psychologically, it seems sound to argue that the essential curriculum for each school child at any given time is not what is on paper in the curriculum supervisor's office. It is much more likely to be the way he perceives his teacher. The curriculum, after all, is only a statement of what the pupil is to learn. His learning proceeds through the vital and basic

mediation of the teacher. What he learns, therefore, is in significant degree a function of how he reacts to and interprets the mediating adult. The implications of this basic observation are not entirely obvious, nor are they free from complexity. It may be advantageous to unravel some of them.

The unravelling process may be assisted by looking at a somewhat different problem, that of juvenile delinquency. In a general way, delinquency represents a failure of socialization; the juvenile either fails to learn the social rules ormore frequently-he learns actively to rebel against them. One of the conditions of this unhappy and antisocial learning seems to be a particular pattern of parent-child relationships. It has been demonstrated,1 for example, that the parents of delinquents are more overprotective, more indifferent, more hostile and rejecting, and less warm than those of nondelinquents. Parental control in the homes of delinquents tends to be either more lax or stricter and much more erratic than in the homes of nondelinquents. Finally, the parents of delinquents tend to enforce discipline much more frequently through physical punishment or threats and much less often through reasoning and explaining the nature of rules than do the parents of nondelinquents.

In other words, the behavior of the parents of delinquent children is such as to alienate their offspring rather than to draw them closer. The social tragedy of this state of affairs lies in the fact that the parents are not only distinctive persons; they are the representatives of society to the developing youngster. In learning that their parents are unfair, unencourag-

ing, and unloving, delinquents act as if they had also learned that the world in general is unfair, unencouraging, and unloving.2 It can accurately be said that these children have learned to want to be unlike their parents. More technically, they have learned motives that are at variance both with their community and with their own long-term happiness. This unfortunate motivational learning has occurred through the mediation of undesirable models, the parents, who have inadequately represented society at large to their growing children. The "home curriculum" may not have been planned, but it is startlingly effective.

Against this instance of social learning it may be asked what the teacher represents. Of what is she a model? Whatever else she may be asked to embody, it seems clear that the teacher functions basically, either well or ill, as the model of an educated person. The school remains one of the community's agents of socialization, and if it serves at its best to advance and to change the culture as well as to preserve and to transmit it, such is the purpose of socialization agencies in dynamic and democratic societies. But what makes the school distinctive from the home, the church, the police and court system, or the Boy Scouts is its special stress on the acquisition of knowledge and the enlargement of one's capacity to reflect upon it. To make this point is neither to deny the advantage or even the necessity of being vocationally well equipped or socially adept nor to

¹S. Glueck and Eleanor Glueck, *Unravelling Juvenile Delinquency* (New York: The Commonwealth Fund, 1950).

² A good discussion of this process of generalization may be found in J. Dollard and N. E. Miller, *Personality and Psychotherapy* (New York: McGraw-Hill Book Co., 1950), pp. 51-53, 98-106. For a startlingly instructive experiment on generalization, see N. E. Miller, "Theory and Experiment Relating Psychoanalytic Displacement to Stimulus Generalization," *Journal of Abnormal and Social Psychology*, 1948, Vol. 43, pp. 155-78.

argue that the school has nothing to do with vocational training or social grace. It is, however, to declare that the school's distinctive and primary mission is to educate, to make available a wide stock of ideas and information and to cultivate the methods by which it can be increased, applied, and formed into new combinations. And it is, of course, merely to restate Dewey's aim of education as the informed and logically trained adult.3

The teacher, then, if she is to facilitate attainment of this educational goal, must be a model of the informed and thoughtful adult. But there are two other conditions imposed upon her. First, the children must learn to want to be like her. It is here that the lessons of the delinquency studies come home. The affection, the concern for the individual child, the reasonableness, and the consistency of the parents of nondelinquents seem important as ways of encouraging a healthy identification with society generally. Children who perceive their parents as fair and loving seem rather more inclined to emulate them in their law-abiding ways. One would expect that similar behavior in a teacher would generate more of a desire in the child to emulate her in her mastery of skills and information and her logical ways of thinking about them. But there is a second condition. Children come to school from a variety of backgrounds, and in one sense, this diversity is increased through their school years in spite of whatever learnings they acquire in common. Thus, the teacher as an effective model of the informed and logically trained adult must be prepared to demonstrate her information and her cognitive skills over a wide range of subject matter, making herself perceptible as a kind of ideal to all children, regard-

less of the interests they bring to her. The teacher is not a specialist or an intellectual virtuoso; she is a student of eagerness and breadth, visible as such to her charges. And if the inevitability of specialization reduces her range in the upper reaches of the school years, the reduction need never be complete. It cannot be if she is to remain a model of the

educated person.

What is being discussed here is, of course, the basic curriculum problem, vital in the lower elementary grades but important throughout the secondary school: How do children learn to like to learn? The question has nothing to do with specific subjects to the exclusion of others. Rather, it is concerned with establishing relationships of identification between children and an adult who prizes and exemplifies the intellectual accomplishments of acquiring new information and actively thinking about it. The outcome sought is the learning of a positive motivation for becoming educated. It is possible that there are few objectives in the ideal curriculum that merit a higher place.

METHOD VS. SUBSTANCE

But a positive motivation for education, fundamental as it is, will hardly bring order into the curricular chaos that seems to threaten American schools in the mid-twentieth century. If each group and virtually each articulate person has distinctive ideas about what the schools should teach, it is obvious that some of them must be disappointed. Similarly, if such anarchy prevails among the influential ential, it may suggest that disappointment is a not improper fate for many of the would-be legislators of the curriculum.

From the standpoint of a learning theorist, more concerned with the development of the learning process than with

³ John Dewey, How We Think (New York: D. C. Heath, 1910).

specific subject matters, it is natural to attack the question first, given the basic motivation, by emphasizing the importance of methods common to intellectual tasks rather than specific realms of subject matter. There is a widespread tendency to regard methodological issues as musty epiphenomena on the substantive structure of knowledge; but in science, in government, and in law it is the methods and procedures that endure and add a virtually endless stream of modification and correction as well as novelty to human experience and wisdom. It may well be that the creative insight that leads to genuinely new discovery is a function of the attributes of an unusual man, just as the novel creation in the arts is probably an outcome of some little-understood combination of events and abilities in the artist. But most of the work of the world is done by people who have simply mastered in one degree or another the techniques of disciplined thought.

For the elementary school curriculum, one implication of this point of view is that a great deal of attention might profitably be given to such matters as sources of evidence, the processes of inference, and the interrelationships of fields of knowledge. Obviously, there is no advocacy here of formal logic in the first grade. There is a suspicion, however, that children are sensitive to a wide range of problems on which, according to their level of development and ability, they can readily bring to bear the processes of definition, collection of evidence, and logical arrangement. If the utility of these processes can be made explicit for them through the mediation of the teacher, the likelihood of their generalizing to other contexts is increased.4

⁴ For a review of this problem and an experimental exploration of it with adult subjects, see R. C. Craig, *The Transfer Value of Guided*

Among other things, this focus on the identification of problems, the gathering of evidence, and the developing of a logical order suggests that the first exercises in formal communication in the elementary grades might better be concerned with argument rather than narration. It seems safe to say that not all children enjoy hearing stories; fewer enjoy telling them; but most have opinions about something and find zest and relevance in both witnessing and attempting the persuasion of others to their own points of view. The debater's skill may yet be embryonic, but one may hear remarkably cogent reasoning, reinforced by a wealth of well-mastered information, in the conversations of boys of nine about which team is a better bet in a World Series. Is it possible that curriculum planning has overlooked the fact that youngsters have points of view which they are eager to advance and to defend by the time they come to school? At any rate, it may be important to remember that to argue successfully one must know something, must order what he knows in a logical manner, and must present his ordered evidence in a communicative manner. The specific subject matter can perhaps range from baseball to astronomy if the teacher can help the child to move toward greater degrees of subtlety and comprehensiveness in applying these methods and toward a greater awareness of both what he is doing and the usefulness of doing it.

More specifically, it follows from the vision of potentiality offered here that simple laboratory demonstrations, the use of encyclopedias and other reference volumes, and a great deal of explicit practice in making inferences from the facts one learns and deductions from the prin-

Learning (New York: Bureau of Publications, Teachers College, Columbia University, 1953).

ciples one encounters could happily be introduced at the earliest possible point and maintained as instruction necessarily becomes more and more concerned with subject matter. The degree of difficulty and complexity could steadily increase, but the emphasis could be on the same basic methods of identifying and defining problems, finding evidence relevant to their solutions, and arranging the evidence in a logical way. Analyzing a story in a reading primer, solving the problem of why ships float or whether a container of ice will overflow when the ice melts, or settling the question of what kind of class party to have all provide opportunities for guided learning in the methods of information-gathering and thinking. Oddly enough, most curricula say little about the explicit cultivation of these skills; yet their fundamental character is unarguable, and the fact that they begin to develop for good or ill even before the school years is known to every teacher and to every parent. Further, the multiplication of studies and subject fields can end only in distraction and superficiality unless some unifying and centralizing factor can be found. The learning theorist is likely to find it in the express and inventive attention of curriculum experts and teachers to ways of developing in all children the methods of learning common to all fields of knowledge. The curiosity, imagination, and experimental turn of mind so evident in youngsters would seem to be a natural resource for this kind of curriculum building that has yet to be effectively capitalized upon.

CONTENT AS SKILLS OF LEARNING

The position sketched so far holds that the basic curriculum consists in the development of a positive motivation for

learning-the elicitation of a serious but zestful enjoyment in acquiring new information and reflecting upon it-and a growing command of the techniques of orderly and sequential thought. Two assumptions underlie this argument: first, that these dynamic objectives can be attained without an initial focus on common subject matter for all children; second, that while these two aims retain their primacy through the school years, they gradually assume the form of a concentration on particular contents, depending mainly on the developing interests and aptitudes of particular youngsters.

But a love of learning demands exposure to something that is learned, and reinforced practice in thinking requires that one think about something. How are these "somethings" to be profitably organized? From the standpoint of a learning theorist, concerned with the progressive steps in the acquisition of knowledge, skills, and attitudes, chronologically first and consistently important subjects are the symbolic skillslistening, reading, writing, and manipulating numbers. It is not so much the clear, practical value of these talents that gives them their curricular vitality, although their practicality provides many opportunities for pedagogical implementation and reinforcement. Rather, it is their character as a basis for all other learning, even the mastery in a technological age of functions associated with mechanics, radio, and electronics. Symbolic skills, then, are essential to education; and in a real but special sense, one may be considered educated to the extent that he has a functional power over the symbolic capacity that is so distinctively human.

Ordinarily, this unfolding of symbolic capacity in reading, spelling, or arithme-

tic has been assessed against some agerelated norm of actual achievement. Thus, children are traditionally characterized (and graded) as "good" or "poor" in these accomplishments in terms of where they stand in relation to the average attainment of others of their own age or grade placement. Such norms have an influence on curriculum planning in providing the presumably realistic objectives for each school year.

But there is a different conception of these symbol-using functions that leads to different curricular implications. It is here that the recent work of Skinner⁵ on "teaching machines" becomes most relevant for present purposes. Although Skinner places his major emphasis on the way in which his machines handle the subtle contingencies of reinforcement in the learning process, his major and revolutionary contribution may lie in two other features of his approach. First, he conceives of competence in any subject, including the symbolic skills, as approximations to total mastery, not as a point on a distribution curve for an age or a grade in achievement. Thus, the significant dimension of assessment becomes that of how far a pupil has gone toward full competence, not how he stands generally in relation to his fellows. Second, to insure steady progress at the student's own pace toward whatever degree of competence he can attain, the material to be learned is "programmed" in such a fashion that any given point is basic to the next point to be studied and that it is thoroughly understood before that next point is tackled. The important thing here is that the material to be learned is so programmed that the pupil never moves on to a new topic until he has acquired a repertoire of responses that en-

⁵ B. F. Skinner, "Teaching Machines," Science, 1958, Vol. 128, pp. 969-79.

able him to deal correctly with the topic fundamental to it. He never, therefore, carries with him any errors learned in earlier sequences into later ones.

A general example may help to make the point clear. In arithmetic, Skinner's method first generates the numbers o through 9 in relation to objects, quantities, and scales. The operations of addition, subtraction, multiplication, and division are fully developed before the number 10 is introduced. Meanwhile, the child actively composes a variety of equations and arithmetic expressions. He learns to deal easily, for example, not only with 5 + 4 = ?, but with ? + 4 = 9, and 5 ? 4 = 9, usually aided by illustrative materials of many kinds. There is no appeal to rote memory, even in the later learning of the multiplication tables. The youngster learns 9 \times 8 = 72, not by memorizing it like a line of verse, but by applying such earlier acquired principles as nine times a number is the same as ten times the number minus the number, that the digits in a multiple of nine add to nine, that in composing successive multiples of nine one counts backwards (nine, eighteen, twenty-seven, thirty-six), that nine times a single digit is a number beginning with one less than the digit (nine times eight is seventy-something), and even that the product of two numbers separated by only one number is equal to the square of the separating number minus one (as in 9 \times 7 is one less than the square of 8).

The curricular problem posed as a challenge by this kind of method and the conception on which it rests is that of programming complex learning sequences such that each later step is dependent on the mastery of an earlier step, with all steps explicit and articulate. The pedagogical question of the machines can be left to research and debate in another

context. The curricular issue engendered

is immediately relevant.

Nowhere is this issue more pressing than in the field of symbol management. Curricular objectives in reading, spelling, grammar, clarity in speaking and writing, and mathematics have been consistently pared down in the light of "realistic" achievement data. At their upper levels of accomplishment, such talents have been conceived as primarily the intellectual property of the bright and advantaged. This tendency has been abetted to a degree by the widely shared and plausible rationalization that the acquisition of such skills is too much removed from the common sources of motivation that can be mobilized to promote children's learning. It is quite possible that this state of affairs has contributed much to the current educational crisis that is so heatedly discussed in both professional circles and the public press. More important, it may have deprived the nation and the world of a general level of cognitive power that is by no means entirely out of reach.

It seems tenable to argue that the difficulty in planning a curriculum in symbolic skills lies not so much in either the motivational or the intellectual limitations of pupils as in the stringencies of programming. This task requires that a field of performance be carefully analyzed and that its units be arranged in some developmental order. While the order follows the proposition that earlier steps be fully comprehended as a propaedeutic to later ones, it also means that the student is presented with just that material for which he is ready and on which his chances of success are maximized. As a result, each step is "easy," given mastery of the preceding series. Since success can be truly said to provide its own motivation, it is highly probable that a stronger and more general interest in language and arithmetic, as well as more accurate and fully developed skills, would result from this kind of program-

ming. Central to the argument here is the contention, illustrated by the example from programming in number skills, that youngsters would be learning to think, to apply general principles to a consistent flow of new problems and new information. By extending the programming concept from the basic symbolic techniques to the more substantive fields, one may generate a curricular structure that has continuity and system in it, preserving the orderliness and opportunities for sequential mastery that characterize the analyses of such particular fields as spelling or arithmetic.

For example, from the earliest cultivation of number skills, it is quite possible to move in a linear progression to algebra, geometry, and bookkeeping and accounting. By combining arithmetical learnings with vocabulary and some common experiences with lights, flames, and thrown balls, one can make physics consecutive with a steady stream of previous training. Similarly, reading can be geared directly into descriptive civics, moving from there along branching lines of development into history, tied to the issues identified in this field, and literature, analyzed as outstanding expressions of the values implicit in these issues. Such programming would leave ample room for pupils to prepare written discussions, to engage in debates and make oral reports, and to spend time on dramatic presentations of aspects of the problems they study as they move into the more substantive areas of knowledge.

It must be repeated that concern here is not with teaching techniques. Rather, it is with the potentialities for the cur-

riculum that may lie in a careful analysis of what men know, beginning with the fundamental skills by means of which knowledge is acquired. From such an analysis, more assertedly than admittedly an arduous and difficult task, it might be possible to derive a curricular structure that would promote more in the amount of information learned and in the habits of reflective thought acquired than has heretofore been considered possible. Should such a state come to pass, individual differences will, of course, remain in learning outcomes. But these differences are more likely to be in how far various children go in completing a twelve-year course of study or in the branching directions they choose to follow in it. This is a very different thing from individual differences at a particular point within it. Parenthetically it may be noted that such an arrangement would have a decided implication for the meaning of grades. Ordinarily, a C, for example, currently implies that a pupil has less knowledge of a piecemeal sort in a whole segment of the curriculum (tenthgrade social studies, for example) than a pupil with an A, more than a youngster receiving a D. Under the system envisioned here, the student with a C would have finished less work than his confrere with an A, but he would have achieved the same degree of competence at the point he has reached as his quicker colleague when he was at that point. Motivational differences would be small because the motivation is supplied primarily by the constant string of successes that must be enjoyed at each point in the program before one advances to the next point. And at each point the pupil, within the limits of his relevant personal attributes, is learning to think and, through the successes, to enjoy the process of learning.

CURRICULUM AND EXTRA-COGNITIVE DEVELOPMENT

So far the burden of this discussion has been on intellectual development through curriculum planning. The psychologist, however, whether concerned with learning theory or some other subspecialty of his discipline, is interested in other aspects of growth. A few comments may be appropriate, therefore, on the physical, aesthetic, and social–emotional dimensions of child development as they relate to school experience.

To a lay eye, at least, physical education in the elementary grades rather often seems to be a matter of free play with a little peripheral instruction in games. In the secondary years, it often has the appearance of the same sort of thing, swollen occasionally by the wen of competitive athletics for a select few.* Psychologically there is ample room for doubt that the opportunities for important learnings are being capitalized on in such an approach to physical development. With respect to values it is explicitly assumed here that health, physical robustness, and the capacity to enjoy the functioning of one's own body are desirable things. The progressive enlargement of the child's endurance, strength, grace of movement, and sports skills then becomes a matter of curricular

Again the concept of programming seems relevant. What sequence of exercises and games can be formulated which, begun in the primary grades, will permit

^{*}Corrective and remedial work is not considered here. One may wonder, however, if this kind of enterprise does not represent more a service furnished through the schools as a matter of social convenience than an integral part of developmental education. To raise this problem is by no means to condemn a beneficial practice. It is, however, to suggest a different perspective in evaluating it.

each child to emerge from high school with confidence in his own physical prowess, a repertoire of active skills which he can enjoy through much of his life, and a background of sufficient success in them to motivate his continuance of them? The analysis called for here is not only of the skills and bodily attributes that enter into performance in tennis, golf, swimming, and other life-time sports; it also has to do with the kinds of activities that progressively develop the neuromuscular system, coordination, and stamina. With each step so planned that it involves a masterable exercise preliminary to the next step, the proportion of successes, particularly in the early years, is likely to be high, and the continuing motivation to build one's body systematically is thus built in. The motivation for play need hardly be called upon.

But the sheer cultivation of one's physical capacities, important as it is, does not tell the whole story. Psychologists are not likely to regard competition as in itself harmful, and competitive situations make possible the acquisition of a number of useful traits that can, if properly taught, be widely generalized. Athletic competition, at least for boys, seems to offer this opportunity with special richness. Courage, persistence, the ability to lose gracefully and to win with modesty, and a zest for doing one's best are traits that it seems quite possible to cultivate on playing fields as well as in classrooms. Team games, most of which are seldom played after school years, are also valuable sources for developing attitudes about cooperation and the submergence of oneself in common goals. But they must be taught with such objectives in mind, and they must be played by everybody. The influential role often achieved by coaches underscores the importance of the adult models available to

children in these contexts and the peculiar vitality of the kinds of relationships developed. Were physical development systematically conceived as a part of educational experience—the acquisition of information and skills deeply reflected upon—the nation might become enriched by more characterful as well as healthier persons.

What has been said about the social by-products of physical training can be applied, of course, to virtually any school activity that requires or permits interaction among children. Oddly enough, psychologists have made few analyses of social behavior that would permit an explicit programming of this side of human experience, but research of this sort is urgently called for. Its implications for school practice might be considerable. Until the necessary knowledge is available, however, it is doubtful if much curricular effort should be expended on the encouragement of social adeptness. Other socialization agencies, notably the home, share heavy responsibility here, and they are likely to exercise a more on-going and stronger influence. As byproducts, however, these character traits are important for teachers to be aware of, and their trained skills and sensitivities may be better relied on than an explicit curriculum based on as yet inadequate information.

Finally, there is the question of the arts and the development of both the aesthetic response and the performing skills. Psychological ignorance is abundant in this area, but two points may be made. Running all through these considerations of the curriculum has been the notion of education as a contributor to self-fulfillment. One of the basic reasons for curriculum planning and even a drastic revision of the concepts involved in it is that the school is an agency

charged with the search for ever more effective ways of helping the individual child to realize his potentialities as fully as possible. Aesthetic potentialities of the appreciative as well as the performing kinds are included in this idea of selfrealization. Second, self-expression through active play and through vicarious forms of entertainment seems to be closely related to aesthetic development. A child's drawing with vivid colors, the imaginative story he creates while playing with toy soldiers, and his excited identification with the hero of a Western movie-all of which have their direct adult counterparts—are representations of the basic aesthetic potentialities. On the one hand, impulses, wishes, or personal attributes are expressed in the relative safety of the play situation; on the other hand, they are expressed for the individual in the equally safe circumstance of the medium, whether it be film or stage, music or sculpture.

It is at least possible that the difference between a child's listening to a tapped-Out rhythm and an adult's listening to Brahms, or a child's crayon drawing and an adult work like Curry's "Tornado over Kansas," lies more in the complexity of conception and, consequently, in the latitude for personal expression of either the active or the vicarious sort than in sheer considerations of technique. Technique nique is, however, the means by which the greater richness of expression is gained, and both the performer and the appreciator are likely to be enlarged by understanding something of it. A problem of a unique kind is encountered here, however. The language of art, in contrast to that of all other fields of knowledge, has a private character that probably cannot be transcended. What one person reads in either Edgar Rice Burroughs or Shakespeare is likely to be different from what another finds there; one amateur pianist may find great satisfaction in interpreting so simple a piece as "Traumerei" in a fashion that another regards as thoroughly unexpressive. Similarly, on the creative side, the painter who is hurt and disappointed at the public "misunderstanding" of his work may have nevertheless experienced genuine joy and met an important need of his own in the making of his picture.

Some of this difficulty may be met by considering the arts as a form of communication. Still more can perhaps be overcome by the study of technique; as in law and the sciences, the methods seem to have enduring value even when the substance has been modified. But in the aesthetic disciplines, as much seems to depend on the attributes of the consumer as on the characteristics of the product, and it is precisely this kind of private transaction between creator, interpreter, or appreciator and the individual work of art that is important. Any piece of music, literature, painting, or architecture has done at least a vital part of its work if it provides individual men on their own terms with stimulation, comfort, or an enlarged sense of self-fulfillment.

Consequently, the curriculum in the arts may require attention to two major enterprises. One is the programming of artistic materials so that the pupil becomes informed about the major techniques employed in literature, music, and the plastic and graphic arts. The performance factor may well be developed in this connection. Familiarity with rhyme, meter, diction, assonance, alliteration, and so forth, in poetry, for example, might well involve verse composition, thus permitting a dovetailing of instruction in the arts with that in symbol management. Similarly, knowledge of music,

in progressing from familiarity with simple tunes to the recognition of contrapuntal techniques, could involve a progression in performance from singing melodies to part-singing and a preliminary mastery of some instrument, including the recorder, mouth harp, or harmonica. It is doubtful if a high degree of performance accomplishment is the particular business of the school, although identification of that talent certainly is.

The other side of the aesthetic experience the school can properly and effectively furnish is that of insuring within the elementary and secondary grades a reasonably full contact with a wide range of specific works of art. The objective here is to provide a basis on which the pupil can select those kinds of artistic expressions that for him facilitate selfrealization. Whether his tastes are for Grant Wood or Michelangelo, for Raymond Chandler or Dostoevski, probably matters far less than whether he can find in the arts as amateur creator, interpreter, or appreciator the clarification of his own feelings and the understanding of his own and historical ideals that mark the cultivated man. It is doubtful that this kind of sensibility can be programed. It depends primarily on a wide exposure to art in the context of a relationship with a sensitive and skilled teacher who more embodies the kind of actualization as a person that the arts can bring than the concept of taste as something that can be defined apart from the feelings, longings, and thoughts of the individual pupil.

SUMMARY

This discussion has attempted to sketch briefly a conception of the school curriculum through the elementary and secondary years from the standpoint of one learning psychologist. It rests essentially on three propositions. First, a primary objective is more the development of strong motivation for on-going learning throughout life than the mastery of particular subject matters. Second, a major degree of attention must be focused on the methods of learning-defining problems, gathering evidence, making inferences, and applying previously acquired generalizations. To this end, heavy emphasis must be laid throughout the school years on such symbolic skills as language and mathematics. Finally, curricular content can be generated from an analysis of the fields of human knowledge into sequences in which each student must master prior steps before proceeding at his own pace to later ones.

These sequences can be formulated from a consideration of the basic symbols, the management of which constitutes the basis of education. Arithmetic, for example, can lead to more advanced mathematics, physical sciences, and bookkeeping and accounting skills. Language training can move into a stepwise consideration of the way men conceive their relationships to each other and the ways by which these relationships are affected by communication. This means the social studies and behavioral sciences and, in part, the literary arts. In addition, the curriculum, conceived as an over-all plan for the socialization of the child through facilitating his self-realization, must provide for the youngster's physical development, the growth of his character in his relationships to others, and his cultivation as a person of aesthetic sensitivity.

Implications for Curriculum Decision-making

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THIS issue of the TEACHERS COLLEGE RECORD may be viewed as an experiment in educational decision-making. We started with the general question, What shall the schools teach?, and asked two educational practitioners to discuss the concrete issues they face when making curriculum decisions. The general question thus led to a number of specific educational problems. Our next step was to submit these statements to representatives of four fields of study: philosophy, developmental psychology, learning theory, and sociology. Each of these writers was asked to address himself to the question, What does your field of knowledge contribute to answering the question posed?

Although the resulting discussions represent only a small sample of contributions which might be made by psychology, philosophy, and sociology to educational decision-making, the analyses of these four writers would seem to have considerable significance for those who make practical decisions in the schools. The first conclusion is that the disciplines represented do not provide the educational practitioner with recipes

or prescriptions for making decisons about what to teach. In fact, three of our authors point this out specifically, and indicate that they can offer only some limited knowledge which the educator might use in making his own decisions. Generalizing from this observation, it does not seem unreasonable to suggest that no ancillary discipline can provide comprehensive solutions to educational problems.

This generalization stems from our limited sample of observations; however, two further considerations support the validity of our proposal. First, on the basis of the two initial statements of the educational practitioners, it is apparent that the problem of what the schools shall teach is multidimensional. That is, the problem involves the interrelationship of factors beyond the scope of any single discipline. Thus, a psychologist cannot answer the question as a professional psychologist because the problem involves more than the development of the child or an analysis of the learning process. Philosophical, economic, social, political, and legal factors all must be considered in arriving at a realistic curriculum proposal. A second consideration concerns the nature of the question, What shall the schools teach? This is an imperative question, and the answer to it would not be a proposition, a statement of fact, but rather a judgment based on some notion of desirable consequences of teaching. The social sciences, however, are concerned with facts and explanation, and contemporary philosophy is largely concerned with "elucidation and clarification" rather than with the task of setting the goals which might determine the educator's decision. Therefore, while each of the disciplines ancillary to education may contribute to the process of decision-making, it is the educator who must evaluate and interrelate these contributions from his distinct perspective.

If psychology, philosophy, and sociology do not offer comprehensive answers to the question of what the schools shall teach, what contributions do these fields make to the process of developing a meaningful answer? We might begin with Dr. Flynn's article in this issue and, generalizing from her statement, assume that all knowledge, attitudes, and skills implied by the concept of civilization might legitimately be included in the curriculum. If we begin with this assumption, the curriculum problem obviously becomes one of selection. Certainly, none of our authors proposed any a priori or absolute basis for selecting one area of knowledge, attitudes, or skills, and ruling out another. However, these writers provided some indications of the kinds of questions the educator must answer in developing his proposals and suggested possible resources upon which he might base his answers. They identified some of the factors the educator must consider in making his decisions and offered some information relevant to these

factors. For example, while the four papers clearly avoided the question of what the schools should teach, they did, in part, begin to answer the question of what the schools can teach. And this consideration of what can be taught would certainly seem to be an important part of the educator's decision about what shall be taught. Thus, each of the papers might be interpreted in terms of suggested limits which would guide the educator's selection from the universe of all knowledge, attitudes, and skills. Professor Ausubel points out limits imposed by the student's readiness to learn particular aspects of a curriculum; this suggests other kinds of individual differences among students, such as motivation and intelligence, that establish boundaries. Similarly, Professor Shoben emphasizes the importance of the teacher as a model in the learning situation; this implies that the characteristics of the teachers available are another kind of determinant restricting a curriculum. Professor Hill discusses the increasing demands of society; recognizing that the school functions within a social framework, the educator might well consider realistic restraints imposed by the society in which he must operate. Similarly, the educator might consider limits imposed by what is teachable. Perhaps the philosopher's clarification of knowledge, attitudes, and skills might lead to recognition that some things must be excluded from the current curriculum simply because they are not teachable at the present time. At any rate, although the papers in this issue merely suggest a few of the variables realistically limiting the curriculum, it seems reasonable to conclude that one kind of contribution made by the disciplines which the writers represent involves the definition of what can be taught in the schools.

A second contribution suggested by

these papers concerns the means of implementing any broad curriculum decision and the implications of these means for specifying what the schools shall teach during the course of an education. That is, given a decision to teach a particular area of knowledge or set of skills, the psychologist and sociologist can aid the educator in defining what must be learned in the process of eventually acquiring the knowledge or skills desired. For example, Professor Ausubel discusses readiness to learn, but he clearly points out that readiness is a function not only of maturation but also of experience. This focuses our attention on the longitudinal aspects of curriculum planning and emphasizes the need to consider the effect of what is taught at one level in terms of the student's subsequent readiness to learn other aspects of the curriculum. Professor Shoben's article similarly emphasizes the longitudinal dimension which must be considered in curriculum decision-making. From his discussion of the transfer of learning and the sequential organization of what is taught, it is apparent that in defining a curriculum, the educator must consider not only the end products but also the process by which these goals can be reached. Thus, a second contribution involves the definition of what the schools shall teach in terms of the longitudinal process of teaching and learning.

Although part of the answer to the question of what the schools shall teach can be based on other disciplines, it would seem that the educator must contribute those aspects of the decision which are based on reasoned opinion,

professional experience, and judgments of value. Without this aspect of the decision-making process, the educator probably would still be faced with the problem of selecting from a range of possibilities so vast that they could not be included in any single curriculum. Moreover, and unquestionably more important, a curriculum decision made without some judgment about the value of what is taught would be likely to result in a static educational program without a systematic basis for either evaluation or improvement. Some notion of desired or valuable consequences of teaching thus provides a further basis for selecting the curriculum, for evaluating what is being done, and for seeking improvement.

If the disciplines ancillary to education cannot make such a value judgment, at least they can help the educator determine those aspects of his decision which are based on fact and those which are based on opinion. Professor Morgenbesser particularly emphasizes the role of the philosopher in clarifying the values and reasons underlying the opinions upon which educators must base their practical decisions. With such clarification, the educator is better prepared to share his opinions and to listen to and evaluate opinions of others. If the educator recognizes that he is responsible for contributing the dimensions of value inevitably required by the decision of what the schools shall teach, and if these values and opinions are clarified, there is at least a reasonable foundation for basing educational decisions on shared wisdom.

-REVIEWS

Adult Education: a Comparative Study, by Robert Peers. London, Routledge and Kegan Paul, 1958. xiv + 365 pp. 35/—.

Professor Peers occupies a unique position in British adult education. As head of the first university adult education department to be established (at Nottingham, in 1920) following the recommendations of the famous Final Report of the Adult Education Committee of the Ministry of Reconstruction in 1919, he has been for over thirty years the doyen of extramural (i.e., extension division) directors. His work in the Nottingham area was of crucial importance in establishing the future pattern of English university adult education; he was in close contact with practically all the main adult education bodies in the country from 1920 onward; he was the author of numerous policy statements and publications in the field of adult education; and latterly he spent periods abroad studying comparative developments in other countries, including the United States. From an author with such an auspicious background much might be expected. Well might his younger colleagues look forward to a magnum opus, "A History, Theory and Practice of Adult Education," in several volumes. The least they might have expected was a sage "Memoirs of an Adult Educationist," containing the mature reflections of a lifetime's experience in the field. Alas, we have been given no such treat. Instead we are presented with a work which is unbalanced in structure, unimpressive in scholarship, and which only occasionally hints at its author's true strength and ability.

Take, for instance, Part I, containing four chapters on the history of the adult educa-

tion movement in Britain. Not only does this retread an already well-trodden path, but it does not even cover thoroughly such secondary material as is available. There is here no new interpretation of the history of adult education, but simply a regurgitation of the old story of successive institutions-adult schools, mechanics' institutes, working men's colleges, university extension, W.E.A.-which has done duty as the history of the movement for so long. It is all very well to protest that this is only "background" (it occupies a third of the book). But what hope is there of a really prescient final section (Part VI) on "The Future" if the analysis of the past is so impoverished and out of date?

Or consider the general structure of the book. Despite the subtitle, three quarters of the book deals solely with British adult education-which will strike American readers as a very odd sort of "comparative study." Undoubtedly the book suffers rather than benefits from Part V, "Adult Education in Other Countries," into which are crammed the background, organization, and problems of adult education in Scandinavia, the Commonwealth, the United States, Germany, and Africa. One chapter is devoted to 'American Adult Education: Opportunity S. nity, Social Adjustment or Enlightenment?" Within the twenty-four pages which he allots himself for this subject, Professor Peers gives a competent broad outline of American adult education. But this cannot be called, in any sense, a comparative study —if that term is taken to mean anything more than presenting separate, unrelated descriptions of similar sets of institutions, rather like parallel railroad tracks that never meet. Moreover, the same eclecticism in the use of historical sources noted earlier is also apparent in the choice of countries selected for "comparison." It is difficult to see on what grounds adult education in Germany deserves a chapter to itself while the Latin countries, Scandinavia, and the whole of the Commonwealth are together compressed into an equal space.

Nevertheless, despite these limitations, the book is useful for two reasons. First, since there are so few works on British adult education that are even remotely comprehensive, this one is likely to become for some time the "standard work" on the subject. It does provide an up-to-date description and analysis for anyone seeking information about adult education in Britain today. Second, it is a revealing document of the traditional British approach to adult education, with all its strengths and weaknesses. The virtual restriction of adult education to formal class teaching by university extramural departments and the W.E.A., the preoccupation with institutions and educational machinery, and the blithe repetition of the unconscious assumptions of the professional adult educationist will strike an American reader as peculiarly insular. He will probably feel that all this tells him more about the psychology and traditions of adult education practitioners in Britain than about what he thinks of as the problems of adult education.

Yet the strengths of the British tradition in liberal adult education shine through on many occasions in Professor Peers' book. The insistence on the importance of voluntary bodies to voice the needs and organize the demand for adult education in a democracy, the constant concern with high standards (however variously defined), and the old high Puritan tradition of earnestness and self-application—these have given the British adult education movement its distinctive flavor. In the past decade it has become increasingly clear that this tradition is weakening, that indeed parts of it have already disappeared. The contemporary task in British adult education is to carry over the best from this older tradition into the society of the 1950's, which in many

respects approximates increasingly toward American norms.

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An Introduction to the Study of Comparative Education, by Vernon Mallinson. New York, Macmillan; London, Heinemann. \$3.50; 21/—.

Among the choices before a writer in the field of comparative education is whether to treat certain aspects of each national system of education in succession or to single out several areas for comprehensive consideration. A more thorough cultural orientation can usually be had by an area organization but it is likely to fall short as a comparative study. Vernon Mallinson's study deals with certain aspects of each educational system in its historical, political, religious, and economic setting.

The author is perceptive and most successful in his treatment when he deals with the countries he has visited and least successful when personal insights and pertinent first-hand illustrations are lacking. The real significance of his contribution to the study of comparative education is found in his detailed analyses of the various aspects of the school systems of Belgium, Holland, Switzerland, France and, to a lesser degree, of Germany, Italy and the Scandinavian countries. The rapid changes effected in Soviet education since 1956 lessen the value of the data he presents on the USSR.

From the viewpoint of an American educator it is regrettable that so many pages are devoted to the concept of "national character." With this judgment many European educators will no doubt disagree. At a national meeting held in 1955 at the UNESCO Institute for Education, in Hamburg, Germany, Nicholas Hans asserted that more attention should be given in comparative education to the problem of national character and to the determinants of national character. This book is certainly an attempt to provide such attention.

Mallinson's thesis is that the education of a people is determined by the national character. He opens the second chapter by defining national character as a "kind of fixed mental constitution" and he closes it by asserting that national character is that attitude of mind that guarantees a common purpose and a common effort from the whole group.

The American educator is likely to find himself asking many questions as he reads the first four chapters of the book. Is there something called a "national character"? If so, is this a "fixed mental constitution" inherent in a nation's makeup? Are national differences in education due to "character" differences or are they determined by many other causes?

It is true that aspects of culture can be blended together to form what Sumner calls "ethos" or what Ruth Benedict describes as a "pattern" of culture. Especially is this true of small nations with a long and hallowed tradition not too affected by change and universalizing experiences. In short, the more provincial a people, the more marked and well-defined will be their "pattern" of culture. Under such conditions it may be possible to point to a group of Englishmen and identify them by their dress, speech, and mannerisms. Can this be done as easily and readily for Americans with all of their many and varied subcultural groups and transitions?

Other pertinent questions can be raised concerning the existence of a national character as a fixed mind. Is it not true that doctors or sailors, regardless of the countries in which they live, tend to manifest similar qualities by virtue of their occupational training and responsibilities? Do intellectuals in France and in England have more in common than either have with the "lowborn" in their respective countries? Do Canadians, in spite of their ethnic, vocational, religious, class, and regional differences, have qualities and features of personality which distinguish them from Americans or the English?

Sociologists, such as Robert Redfield and

Bronislaw Malinowski, maintain that similarities of character within a group are traceable less to constitutional factors than to formative influences of the environment to which all members of the group have been subjected. Children who have been reared along certain lines will have a tendency to behave in certain ways because of their adherence to well-defined group standards. Even then there are likely to be many individual deviations from patterns of behavior. Hence, the conception of national character, conceived as the feeling tone or the temporary set of a group toward things, acts, circumstances, and people, is quite different from that of a "fixed mental constitution." If it is used by students of education as a tentative abstraction and a tool for critical analysis of a culture, certainly the idea of a national mind has a legitimate function. But it is the opinion of this reviewer that Mr. Mallinson has overstated the case for national character.

A few other minor shortcomings of the book may be pointed out. The terms boards of education, school board, and school committee are used in the United States rather than L.E.A. The generalization that "in all state-maintained schools in the United States there is a complete absence of any general religious instruction of school worship" is in conflict with the findings of the report of American Council on Education, Function of the Public Schools in Dealing with Religion." A visit to most elementary schools outside the large metropolitan areas of the United States during their opening exercises would be a revelation to Mr. Mallinson. He would also find that many American high schools still retain the custom of giving class examinations at the end of the academic year and that some students fail and are not promoted to the next class.

Coeducation once again prevails in the Soviet Union and fees are no longer levied on pupils attending the upper secondary school and the higher institutes. Owing to recent changes, the leaving examination at the end of the fourth grade has been eliminated as a prerequisite to the junior school

and the trend is now toward eight years of common schooling with a variety of formal and informal educational choices available for another two or three years.

The American student of comparative education will be pleased with the references to education in England throughout the first five chapters but he will be disappointed with the complete absence of any references to English education in the remainder of the book.

In spite of these shortcomings, the book will appeal to the student of comparative education because of the flowing, lively, and scholarly style of writing. It will be appreciated even more by the student who has had some background in area studies in comparative education. My students reported that, after some orientation in and familiarity with the educational systems of the European nations, they found Mr. Mallinson's treatment much more understandable and challenging than when they attempted to read it without this preparation. Their judgment is that this book is superior to many of the contemporary studies in comparative education.

GERALD READ
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Philosophy of Education, by Philip H. Phenix. New York, Henry Holt & Company, 1958. xii + 623 pp.

It is impossible to review the book of a good friend with so-called scholarly objectivity. It has been the pleasure of this writer for several years now to know Philip Phenix, to enjoy his association in the Philosophy of Education Society, and to work with him on some fairly heavy committee assignments. His warm friendliness and his quietly contemplative manner say something which in all probability cannot be found in a book. Nevertheless, careful study of a most painstaking book such as this one makes explicit many ramifications of one's mind which for the most part are unexposed during the course of only occasional sessions together. Until this year Professor

Phenix was Professor of Philosophy of Education at Teachers College, Columbia University. But now he has embarked on a new career as Dean at Carleton College which it is hoped will not take him away from the scholarly guild of educational philosophers. The usual suspicions with which teachers commonly look at administrators will not be voiced here; but one cannot help but wonder what unseen transpirings are involved when a philosopher becomes a dean.

This book by Dean Phenix is patiently, almost meticulously inductive. It starts with a multiplicity of ramified elements in education and shows, step by step, their philosophic bearing. This patient induction occasions the four major parts of the book. Part I deals with those aspects of education as found particularly in its institutional form, the school. The extent of the discussion is such as to embrace eight chapters of over 150 pages, and that without being thin. Part II analyzes education as its character may be determined by forces or influences in nature and society. This section is somewhat shorter, extending through seven chapters, with 116 pages. Section III, the largest section of the book and just a bit fuller than Part I, applies the author's painstaking approach to the fields of human knowledge upon which education turns its focus as objects of study. They are mathematics, natural science, the sciences of man, history, language, the arts, philosophy and religion. The final section, Part IV, raises ultimate questions: the philosophically significant issues which emerge from the book's patient analysis, as the overarching problems with which man must deal, to which also serious consideration of education will eventually bring him, and from the perspective of which education and all of its ramified elements must be considered if it is to be truly significant. There is a 21-page bibliography arranged by chapter, so that the student may have a ready guide to the readings which would be helpful supplements to the subject of each chapter. The index covers seven pages and appears not to be sufficiently full and analytical to do justice to the multiplicity and variety of subjects taken up by the book.

This volume also hews a precise line of impartiality and fairness. Viewpoints in philosophy, as such, are not discussed, as Professor Phenix explains in his introductory chapter is clearly not a part of his intention. But as each subject is taken up, however major or minor, the different ways of handling it philosophically are presented with utmost fairness. If the intention was to be piously fair and impartial, the author has succeeded remarkably well, possibly too well. For some readers, including this one, the book is translucent in its neutrality. But yet it is good that the book is so fair. For example, on such an important issue as naturalism versus supernaturalism, whenever relevant to the discussion at hand, Dr. Phenix does rather full and sympathetic justice to these decisively divergent views. He is as fair and sympathetic in presenting supernaturalism as he is in discussing naturalism. Yet the reader cannot help being tantalized by curiosity as to which side Dr. Phenix aligns himself on.

This reviewer fears for the student using this book either as a textbook or as his first book in philosophy of education; although for advanced students no criticism is intended here. The writing is good and easy to follow, but the avoidance of organization after the manner of philosophic system leaves the student a very difficult task in finding his way. He is provided adequate alternatives of judgment at each step, and may very well be caught in a series of dialectical tensions by these successive discussions. But how can he discern whether there is any connection between the many alternatives from among which he may choose?

True enough, the weakness of analysis by philosophical systems may be that it can easily become superficial, schematic, and arbitrary, possibly diverting attention from real issues to a dilettante interest in classification. But there are equally great hazards in the approach Professor Phenix makes in this book. The hazard is that of loosing the

student in a forest of many alternatives, the significance and interrelationship of which he may never come to see. And if the student becomes swamped in this manner then he will miss a big segment of the philosophical task. While he may make important decisions concerning detailed issues, he may never come to recognize any scale of importance among issues and may never succeed in taking a position which has total and all-conclusive significance and in which he can find intellectual integrity. And is this not one of the most important services philosophy of education should render? Should not the discipline make people think with such perception and integrity that as teachers or administrators they bring to education a unified approach having distinctive character or flavor which is somehow both moving and engaging to students and associates, even if they do not give consent to it?

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"The Secondary School Curriculum."

The Yearbook of Education, 1958, edited by George Z. F. Bereday and Joseph A. Lauwerys. Yonkers, World Book Company, 1958. xv + 544 pp. \$8.50.

This seems to be a time for accent on youth throughout the world. It is therefore most appropriate that the editorial board of the Yearbook of Education chose as the topic for its sixth work, "The Secondary School Curriculum." Four arguments are advanced as justification of this choice, and certainly others could be added. The editors recognized that the problem of educating ing for adulthood is most perplexing when dealing with youth in the period of puberty, that increasing enrollments in youth education require appraisal of the total content of that phase of schooling, that technological changes and scientific advances must have impact upon the nature of preparation

for life in societies throughout much of the world, and that the quality of adolescent-adult understanding has apparently deteriorated. Fortunately, this volume contributes a calm and relatively objective appraisal of certain aspects of youth education in terms of these arguments.

The student of comparative education will recognize the pertinence of such arguments. This is a time of trouble for all, and the spotlight is shining on youth and the education of youth in many lands. Perhaps there is a resurgent recognition that the fate of civilization is best forecast by examining the forces and facts of contemporary provisions for helping youth prepare for the obscure future. Perhaps there is validity in equating the adequacy of these provisions with the very survival of mankind. In any case, there is no doubt that what youth must learn, and how they are to learn it, is a critically demanding concern of our times.

This volume takes a broad look at the current scene in many lands. Five sections constitute its framework. Tradition and the curriculum, stated aims and objectives, the curriculum in the educational pattern, the influence of social circumstances, and theories of education and curriculum reform are the major headings. Half a hundred contributors report from every continent, every cardinal point of philosophy, and from a wide range of cultural sophistication. Despite this varied and extensive group, writing from great distances and differences of background which no doubt created unique problems for the editors, the Work adheres to its framework and accomplishes to a fortunate degree its stated purpose.

There are gems—both uncut and polished within this book. Starting with a chapter on the history of the secondary school curriculum by the dean of comparative education, Dr. Isaac L. Kandel, the reader can rove from sixteenth-century England and worship of the past in Italy, through moral training in animist societies, by way of parental influence on the curriculum in the

United States or progressivism in Japanese schools. He can read of the forces of technological change in Ghana or of the interest in sports in Australia, and of the effect of each upon the education of youth. Mental health influences curriculum in Ceylon; audio-visual devices do the same in the United States. Here is reference to the past and prophecy of the future. There is, within the basic framework of this volume, a variety of topic both impressive and absorbing.

Yet this breadth of coverage is a weakness, for the contributions from so many writers in such relatively brief treatment pose a question as to the adequacy, if not the authenticity, of much of the material. Are seven pages of text sufficient for a discussion of local control and national loyalty within Yugoslavia? Is the same amount of space adequate for an honest treatment of the relationship between administration and curriculum change in the United States? Can "The Influence of Tradition and Habit in England Today" be dealt with in three thousand words? Does not such an assignment necessarily lead to studied superficiality? Splendid writing and scholarly devotion are represented within this work, yet this reader cannot help but wish that more depth and less breadth had been represented.

It is true that a concern for the theory of the curriculum dominates the 1958 Yearbook. Much of the content is provocative and stimulating. Yet the inescapable desire to learn more about much of this material may lead the student of comparative education to frustrations which might have been avoided had there been opportunity for the writer of many of the articles to develop his material more fully.

This, of course, raises a question as to editorial policy. The twelve-man trans-Atlantic editorial board has no doubt considered this problem for the current volume as well as for earlier ones. Would it not be a more valuable contribution to deal in depth within a narrower universe? Or is the real purpose of the Yearbook merely to

stimulate further interest in comparative education, to tease the reader's palate with a taste of what can be found through further inquiry? If the latter is true, then this work has accomplished its purpose for this reviewer.

The question, then, is where to turn for such additional information. There is a good body of literature available concerning current problems of the secondary school curriculum in most of Europe and North America. A real service might have been provided through the inclusion of a bibliography with each article dealing with the remainder of the world. This assumes that such a literature is available. If it is not, would there not be a place for a more nearly complete development of selected articles contained within this stimulating and potentially frustrating work?

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Exploration in Role Analysis: Studies of the School Superintendency Role, by Neal Gross, Ward S. Mason, and Alexander W. McEachern, New York, John Wiley and Sons, Inc., 1958. xiv + 377 pp. \$8.75.

Much of the criticism of American education has been directed toward the quality of the leadership that is recruited, trained, and elected to manage public schools. The school superintendent has been, and remains, one of the chief targets of those who are on the firing line. But despite the general dissatisfactions and concerns of citizens as well as the ofttimes hidden and diffuse motivations of self-appointed critics, we do not have as yet a clear-cut conception of the nature of appropriate leadership roles to be played by an effective school superintendent. Moreover, we know very little about the personal qualities of individuals who make "good" school administrators. In fact, there are conflicting theories and methods concerning the role behavior and personal characteristics of the "ideal" superintendent of schools.

There is a wide range of questions which receive different kinds of consideration from educational researchers.

- 1. Does the desired leadership in school administration emerge from the qualities possessed by a particular type of individual, or does it stem from an interactional function of a personality in a social situation?
- 2. Is the "ideal" school superintendent a member of a group which confers statuses upon him, and assigns him roles by which the duties and obligations of his office are fulfilled? Or is he a person who brings to his group added prestige which, in turn, takes on new conceptions resulting from the achieved status by one of its members?
- 3. Which of the attributes of superintendency—intellectual achievement, analytical ability, foresight, or diplomatic skill—weighs most heavily for his success or failure?
- 4. Does the effectiveness of school superintendency depend upon the above attributes, upon the community structure, or perhaps upon a functional relationship between the two?

If one feels that answers to the above questions are obvious, then as a scientist he must ask himself, "How do I know this? What and where is the evidence to support my views?" Those with personal experience in running businesses, schools, or other institutions should not persist in reciting their local and historic impressions as if these represent scientific principles. The literature of education is already replete with biased and distorted experiential personal materials presented under the label "science." On the other hand, there is a woeful dearth of systematic studies that represent scientific principles of how to recruit and process selected individuals for running our schools.

For the above reason alone, Exploration in Role Analysis: Studies of the School Superintendency is a report of a research effort long overdue. The study was launched at Harvard University in 1952 by

the School Executive Study Unit of the School of Education. The authors, each of whom is a staff member of the Study Unit, set for themselves the task of analyzing the professional career patterns of school superintendents. The over-all research designed was constructed primarily "to forge a closer link between theoretical and empirical analyses concerned with the study of roles." The several studies were framed within the theoretical orientations of the late Ralph Linton, Talcott Parsons, and Theodore Sabine—a cultural anthropologist, sociologist, and social psychologist, respectively.

It is apparent that the authors share the feelings of frustration and concern of this reviewer, along with a host of other social scientists whose interests are focused upon educational structures and processes. They obviously feel the need for increased emphasis upon systematic studies of leadership behavior in relation to social structures, and in the interest of establishing appropriate and predictive controls in the selection and training of persons who are to be assigned the responsibilities of managing our school systems. Moreover, the authors are undoubtedly dedicated to the often-expressed notion that social scientists and educators can and should become closer partners and begin to pool their knowledge and skills for the purpose of taking a more searching look into the problems involved in increasing the effectiveness of various educational efforts. Such a partnership, it is assumed, would be of mutual benefit in that both social science and educational theory and methods would be extended and improved.

The volume is divided into two parts: the first section is conceptual, and the second reports the empirical studies. In Part I, the authors outline and analyze the research problem in respect to its theoretical dimensions and the indicated methodological approaches. In a somewhat conventional fashion they attempt to construct a language for role analysis. However, they are quick to recognize the semantic difficulties of such an exercise. Nevertheless, they assume,

and quite correctly, that an essential canon of any science, and indeed of a science of education, demands that rigorous attention be given to the development of precision in meanings of its working concepts. Moreover, if there is to be a science of education, definitions of terms must not only be exacting as in other fields, but must, in addition, be universally applicable.

After a painstaking examination of the literature on role behavior and social structures, it was decided, quite arbitrarily, that the most fruitful approach to a role analysis of school superintendency should take into account three elements of the superintendent's job: social locations, behavior-both covert and overt-and societal expectations. These ingredients, the authors claim, are common to the social roles of all "actors" in any social structure. Thus, a "role language" was established for viewing the behavior of the men and women who occupy positions of "tending" our schools at the top level of administration. In order to sharpen the viewpoints, the authors built into the research effort a number of definitive terms that presumably serve as heuristic (inventive-discovery) devices: position, rights, obligations, expectations, sanction, and others.

The study falls short of its objective as far as building an adequate "role language" for a science of education; it simply introduces an even more confusing jargon into the literature of the sociology of education. One of the dangers is that some less sophisticated educators might pick up these terms and use them in teaching and research as though they represented the actual behavior of superintendents.

Another possible shortcoming concerns the soundness of the authors' judgments in the selection of concepts. What are their academic leanings? Upon what assumptions do they rest? Can it be that the authors have selected certain terms, giving them precise meanings based on their own academic standpoints? Or did they select them because they represented useful operations for their particular research design?

There are still other questions for which this reviewer would like answers. Why did the authors decide that "role consensus" must be viewed as a factor rather than as an attribute influencing the behavior of the superintendent? Was this decision made for convenience of the research operation? Was it derived from empirical observation? Was it an a-priori decision, or was it based solely on deductive reasoning? Finally, do the authors assume that a science of education rests wholly on the use of mathematical tools, and that a research design, even one of exploration, must always lend itself to such instruments as central tendency, correlatives, and strain toward consistency?

In Part II, the authors present enough hypotheses to keep a score of sociologists of education busy for the next decade. Here is the real value of the study. The fact that many of the conclusions and tentative hypotheses do not transcend what is already thought to be known does not in and of itself reduce the importance of the empirical studies. They place in researchable contexts several sociologically relevant situations relating to the job of superintendency. The authors conclude:

that human behavior is influenced to some degree by the expectations individuals hold of themselves . . [and] that a person's location or position in social structures influences the kind of social relationships in which he is involved.

The study is of period-marking significance, not in terms of laying new theoretical groundwork, or of extending methodology in social science and education, but rather in the way the authors systematically go about sharpening a series of role concepts for more rigorous discovery and testing of knowledge as it relates to an improved sociology of education. Accordingly, Exploration in Role Analysis might best be viewed as but another step, albeit an important one, toward sharpening our intelligence about human conduct, thus moving us closer toward a science of education. One must commend the authors' muchneeded adventure into the realm of the

unknown—the complexities and problems of the school superintendency in education.

MOZELL HILL

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The Ideal and the Community, by I. B. Berkson. New York, Harper & Bros., 1958. xii + 302 pp. \$4.50.

There are books whose quality is so persuasive that it even dominates positively the character of the review of it. Sometimes a work in the Foundations of Education is sere, analytical, concerned to draw out the logic of intentions of the concepts set down, consciously concerned to be free from the juices of human experiencing. Then a review, if it is to be pertinent and readable, must be elegantly antiseptic. Sometimes, however, a work sparkles with the brilliance of the author himself. Then the reviewer hopefully, but vainly, strives to match the grace and charm, the delight of spirit, and the strength of the hope that the author reveals. Just such a work is I. B. Berkson's The Ideal and the Community.

Not for a long time has a book so recommended itself by the warmth of personality of the author, permitting himself to be observed thinking out the problems that he deems important. Mr. Berkson's scholarship is impressive, his style is charged with a natural humility, his line of argument is clear and simple without oversimplification. And what comes forth is a completely refreshing example of thinking at its most mature. (Peace to the analysts who seek to disconnect the writing from the writer.) The field of education stands in great need today of refreshment of the spirit of those who work on its hard-pressed frontiers and barricades.

The work is concerned to carve out, as sedulously as a scholar can, two identifiable but interlocking problems. The first is an effort to offer an alternative to the notion that education must derive either from a transcendental metaphysics, or from a careful reading of the verifiable biological facts

which identify the human being for what he is and what he can do. The second is an attempt to find an alternative to the judgment-making process which he feels is either institutional dogmatism or the excessive individualism produced by experimentalism as a philosophy. His own view is that "only a study of the history of man as creator and creature of civilization can give us a clue to man's distinctive nature, and provide us with the educational principles needed to bring about a progressive fulfillment of man's deepest and highest purposes and thus achieve self-realization." Only in the community of intelligence, in which the past is revered for its endowments to the present as it moves into the future, can moral decisions of enduring worth be made. Man is lost outside of the community, and community is a historical event.

Philosophy of education cannot but concern itself with the ethical and the political. The former includes the ideals which guide men, sourced in the deposit of experience with which today's man is continuous. The latter is manifest as the community, within which only can man's life be fulfilled. As ideal and community come closer to each other in influence, both the form of education and the individual nurtured move toward completion.

In community, man becomes truly human. He lives in a society, is enabled to purify it as he advances it, and as he does, reaches beyond the immediate limits of immediate social demands, to attain to an ever wider context (national, international) in which his self approaches widest fulfillment. Failing to transcend metaphysics, man identifies an institution with the whole of culture; not transcending experimentalism, he is led to a complete underestimation of the role which stable institutions play in developing continuity and progress. Only community, guided by firm ideals, nurtures the best in men.

In the pursuit of deeper understanding of ideal and community and their relationship, Mr. Berkson confronts another of the grave issues of the day: the relationship between

science and ethical judgment. Education, he says, is a practical art, and requires a level of generalization different from that of science. The nature of science is such that it demands a spirit of detachment. Ethical judgments, especially as they are seen to be educational in concern, and made as directives of conduct, necessarily are charged with human involvements. Of this argument I will say more shortly.

Unquestionably there is a beautiful consistency in the structure which Mr. Berkson erects. He is deeply committed to the humanist's concern for rooting man's life in a situation which responds to intelligence. But he is equally concerned that man should not lose sight of his continuity with the past. If he assumes a relationship between past and present that he does not fully expose and justify, he certainly shows logical movement that is coherent. The balancing of community and ideal, he holds, balances science and the spirit, so that each liberates the other from one-sidedness. For Mr. Berkson, man is vibrant, constantly learning, constantly growing, with guides of enduring merit all around him. Surely this is a noble picture, setting a noble task for the educator who sees the vision.

The reviewer cannot resist making one rather detailed observation which may perhaps challenge the structure as a whole, not in the sense of revealing its inadequacy but to explore possible expansion of it.

Perhaps, in the continuing discussion over the varieties of approach between the scientific and the ethical, it is our view of what constitutes the scientific that needs reexamination. The notion that science proceeds by detachment, and therefore promotes greater certainty is challenged, not only on a psychological basis, but on a physiological and logical one as well. Modern physics is distinguished by the recognition that the observer is an inherent part of any scientific inquiry, and variety in his action produces variety in the outcomes of his inquiry. This has always been known, in a vague way, and various methods have been employed to reach a more secure result in spite of it. Modern science does it by introducing statistical data as a mode of explaining events, in place of the more immediate and simpler cause-effect formulations. In this way, room is made for many more variables, for now a range of conclusions are all tenable. The assumption that nature dictates all conclusions in any degree of fixity is thus abandoned.

In moral affairs we have had more experience. It has always been evident that man's mode of inquiry directly influences the judgments he makes. He has tried to offset this, either by claiming an objectivity for the judgments themselves (as the voice of God, or nature, or history) or by holding that moral judgments are hopelessly subjective. The first actually credits ethics with being much the same *kind* of affair of judgments as science is. The second holds the two to be completely different, grounded on different methods of approach. Both have agreed, however, that science is concerned with what *is*, ethics with what *ought* to be.

Historically, this seems to have derived from the conviction that man has choice in his conduct, while nature is determined by its own laws. To equate science and ethics is to reduce man to some level below the human.

It is possible, however, to hold that both science and ethics are concerned equally with what is and what ought to be. Physics, for example, is concerned to identify what is in terms of the way in which elements of an object hang together. Ethics, if it is to make any sense, must also identify the way in which situations in which men find themselves hang together. At the risk of introducing confusing metaphors, physical force and "social force," though they are not to be understood in the same terms, have much the same function as explanation for the auspices under which "things hang together." And both hint at what would exist, if present events moved forward.

The revolution in science, however, is the movement from the view that science mirrors reality at its deepest, to the view that

science predicts, and controls situations not yet present. In that case, then, science is concerned no less than is ethics with what ought to be. If the scientist's concern is with the logic of inquiry into natural events, while the ethician concentrates more heavily on the psycho-logic, the methods of approach, the evidence acceptable or rejectable, the characteristic form that knowledge takes remains very much the same.

No one seriously believes that there is only one way of getting at things. Objectives and materials, as they vary, make possible all sorts of ways of approaching both knowledge and use. What is claimed, however, is that getting at things has a certain unitary set of limitations which make scientific method a universal pattern. General aims such as objective verifiability, public character of conclusions, and flexibility become the ground rules for every way of getting knowledge and use. Without such rules, the doors open to claims for which no evidence can be solicited. If scientific method gives no answers (and it does not, in either physical or ethical issues), it sets the quality for the answers that specific approaches do produce.

When science exploded its own myth of producing certainty, it proceeded to follow the path of ethical judgments in the introduction of principles of uncertainty in the growth into more sensible directions. Science has reached the same point by admitting perception as part of investigation. As a result, history has no more claim to definiteness than does the present. I read Mr. Berkson, therefore, as appealing for that enduring quality which is the courage to build newer ideals, test them by the community which they inspire, and be ready to change ideals as intelligence reveals the need to do so. The act of observing ing the relationship between the ideal and the community affects conclusions just as the act of observing molecules affects their motion.

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An Ignorance We Take for Granted*

BERNARD BARBER†

ASSOCIATE PROFESSOR OF SOCIOLOGY, BARNARD COLLEGE, AND ACTING DIRECTOR, COUNCIL FOR ATOMIC AGE STUDIES, COLUMBIA UNIVERSITY

Na recent informal talk before a Harvard University audience, the British novelist, scientist, and civil servant C.P. Snow, who is entitled to be known as Sir Charles Snow, deplored the ignorance of science that even many educated people in our society profess with no shame. It is an ignorance so common that we are likely to take it for granted as inevitable, though we have been stirred during the past year by Russian scientific successes to at least a little more educational effort, a little less complacency about this defect in our knowledge of the natural world. To illustrate his point Sir Charles asked his audience how many

of them knew what the Second Law of Thermodynamics was. As you might know from asking yourselves the same question, he had an easy victory. For we expect—we even take it for granted—that educated people in our society will be ignorant of much of the fundamental knowledge of natural science.

But just yesterday, as I have said, we began to wonder whether we should take this ignorance for granted. Today we are in the midst of the confused discussion that often precedes effective action. And perhaps by tomorrow we shall have undertaken educational reforms that will eliminate as much as possible of this ignorance of science. For we can no longer doubt that more science needs to be learned by children in schools, or that more science needs to be read about and seen by adults in books and magazines and on television. We should not, of course, propose to make a scientific specialist of everyman through these re-

†Published books by Dr. Barber include Science and the Social Order (published also in England and, in translation, in Japan and Spain) and Social Stratification.

^{*} Note. The articles by Barber, Harlow, Jacobson, and Elsbree respectively, which appear in this issue of The Record are based on talks which were given as part of the All-College Lecture series at Teachers College, Columbia, in July, 1058.

forms in school curricula and adult education. The society we value would perish without a great many other kinds of specialist-political, religious, legal, educational, artistic, and economic. These too we must train, and few men can be trained nowadays, so great is the accumulated knowledge in our world, to be two kinds of specialist. But we can try to give almost everyone some general and fundamental knowledge of natural science. We can try also to instill attitudes that are essential to the independent continuance of learning about science in adult life. In short, there is much that American education can do to end this ignorance of science we now take too much for granted.

Sir Charles' illustration is taken from the theoretical substance of natural science. It consists of an extremely general law about the functioning of the physical universe. This is the aspect of science, its theoretical substance, which we think of first, and often last as well, when we contemplate our general ignorance of science. But, speaking for the sociology of science, I suggest that we take too much for granted an equally great ignorance of science as a social activity. We are so much bedazzled by the theoretical substance of science, or dazed by our ignorance thereof, that we neglect the fact that this substance is the product of a certain kind of human activity-in some respects different from other human activities, in other respects similar. Scientists themselves usually ignore this social face of science. Read their reports and see how, by what has been called the process of "retrospective falsification," they leave out all the social and psychological aspects of their creative processes, retaining only impersonal descriptions of method and substantive finding. Yet is it not as important to under-

stand how science functions as what it creates? Our ignorance of the sociology of science is something we can no longer take so much for granted. If this ignorance had been less profound we might not have been so surprised at the recent striking evidence of Russia's scientific achievements. The strength of Russian science had been analyzed by sociologists of science, none of them political partisans of Russia, a decade ago. Nor can we take this ignorance for granted if our own science is to continue to have great achievements, if it is to make contributions to fundamental theory and not degenerate into an applied technology. We can no longer neglect what sociologists already know about the social conditions favorable to fundamental science, and of course we need to know more. In short, again, there is much that American education ought to do to end this ignorance of the sociology of science we now take too much for granted.

SERENDIPITY PATTERN

Perhaps I can use C. P. Snow's device of asking a question to illustrate this regrettable ignorance of the social aspects of science. How many college-educated people can describe what sociologists call the "serendipity pattern" in science? "Serendipity" is a word coined by Horace Walpole in 1758 to describe the generic human process of happy accidental discovery, of coming "by chance or by sagacity," as Webster's Unabridged puts it, upon good things one did not set out to seek. Serendipity occurs to all of us, not nearly so often as we wish, but still often enough that we are familiar with it. During the past seventy-five years or so, scientists have become aware that serendipity occurs to them too, though they all too seldom refer to it in the published reports of their discoveries.

The "serendipity pattern" in science, however, is different from serendipity elsewhere in human life. In most other social activities, the admixture of sagacity and chance that makes up every serendipitous event contains more chance than sagacity. Thus, when the book collector refers to a serendipitous discovery of some rare item, he is usually thinking of some happy find he made by almost pure luck. In science it is the other way around. There is more sagacity than chance in the admixture which, still a little alchemically, produces serendipity in science. That is what Pasteur meant when he said, "In the field of observation, chance favors only the prepared mind." It was mostly their prepared minds, prepared to consider the bactericidal effects of bacteria, and only a little bit of chance, that led Sir Alexander Fleming, Florey, and Chain to the discovery of penicillin and antibiotics in general. It was for this basic discovery that they were awarded Nobel Prizes.

One of the implications of the serendipity pattern in science is that a great deal of foresight or planning is necessary, planning to have a sufficient quantity of prepared and sagacious minds, and planning also, paradoxically, to create those attitudes and conditions in which the prepared mind will be able to see the chance occurrence that puts him on the right path to scientific discovery. Or, to say it another way, an understanding of the serendipity pattern reveals that in its social organization science must have a combination of control and freedom, in its workers' attitudes a combination of firmness and flexibility, which we still cannot define precisely but which we know is different from that excess of either the one or the other so often Praised and recommended by men with some ideological axe to grind.

Another implication of the serendipity pattern is that the creative process in science is similar in some essential respects to the creative process in all other fields that deal with symbol and form, whether philosophical, artistic, or literary. This means that the work of a philosopher like Suzanne Langer on the types and processes of symbol formation is as valuable for those who wish to understand science as for those who wish to appreciate painting. And it means that what John Livingston Lowes said, in his book The Road to Xanadu, about Coleridge's creative processes can tell us a good deal about the social and psychological antecedents of scientific discoveries. Poets who learn about the serendipity pattern in science will recognize at least a touch of themselves in scientists and no longer pity or despise the poor fellows whose fate they may have thought it was to produce ideas automatically, like a machine rather than like a man. Seeing something of a common fate in their common experience with the serendipity pattern, scientists and creative people in every field of knowledge and the arts may be the better able to build those bridges between themselves which are so necessary for the integration of our highly specialized so-

PRIORITY DISPUTES IN SCIENCE

Now let me ask another question, one by which you can prove your knowledge, or the likely lack of it, with regard to the system of incentives and rewards in science. How often do priority disputes occur in science? Never? Infrequently? Very often? The answer to this question requires a historical and sociological knowledge of science which the educated person, unfortunately, too often lacks, and lacking, does not miss. The

answer, as Robert K. Merton recently showed in his presidential address to the American Sociological Society, is: very often. The history of science, as he illustrated in detail, is filled with disputes over priority in discovery, major discoveries and minor, disputes that are fearfully acrimonious and those that are somewhat better-tempered. Perhaps you have heard of some of the few very well known priority disputes, such as that between Leibniz and Newton over the invention of the calculus, or such as that between Charles Darwin and Alfred Russell Wallace over the discovery of the theory of evolution through natural selection. In the latter case, good temper and modesty prevailed on both sides, but the question of priority was nonetheless terribly important, as Darwin's agonized questions and doubts in his letters to friends reveal. Indeed, so often do priority disputes occur in the history of science, right down to the present day, and so likely are they to occur just because of the system of incentives and rewards in science, that Merton has adopted the outrageous but useful hypothesis that every scientist has been involved in one or more problems of priority, public or

Why this hypothesis? Does the sociologist who entertains it deny that the values of impersonalism and communalism prevail in science? Has he not observed the dispassionate objectivity of scientists in weighing evidence, in reaching conclusions? Has he not seen how scientists freely contribute their findings to the public stock of knowledge, how they complain when the public is defined for political purposes in national rather than universal terms? Is the sociologist accusing scientists of being petty, jealous, and contentious men beyond the measure of other men?

No, the sociologist recognizes the strength of the values of impersonalism and communalism in science. He does not look to the matter of personality differences, which may or may not exist, to explain the behavior of scientists. Instead, or rather, in addition, he asks what the system of social incentives and rewards in science is and what effect this system is likely to have on the actual behavior of scientists. The sociologist knows that monetary rewards are not primary in the scientist's incentive system. Rather, the achievement of originality, of priority in discovery, is the primary incentive for scientists. In fact it not only is but must be so, if science as an organized social activity dedicated to discovery is to continue. Hence the socially required and socially structured concern among scientists over priority. They do indeed give freely of their discoveries to the universal communal stock of knowledge. They possess no private intellectual property, nor do they want any. But they do want the credit and the fame that come from having made, and made first, the discovery that they gladly transmit to the public domain. No wonder the world of science is replete with prizes, medals, lectureships, endowed professorships, and other institutionalized devices for bestowing honor on scientists who make original discoveries. No wonder the world of science is suffused with the practice of eponymy, by which the name of the first man to make a discovery, no matter how small, becomes the name of that discovery, so that we speak of certain fundamental laws of nature as Newton's laws.

Given the purpose of science to make discoveries, and given the system of incentives and rewards for originality that is essential to the accomplishment of this purpose, there is something wrong, not

right, with the scientist who is entirely unconcerned about priority. Merton's sociological analysis of why priority disputes are likely to occur very often in science may be disturbing to some scientists-those who think that it is "dirty" to talk about the seamy side of life, even though this side is only the obverse and less important counter to the sunny side. But those who are willing to look on both sides have heaved a sigh of relief over this analysis. They feel it frees them from an unnecessary guilt over normal concerns, a guilt which springs, as guilt so often does, from a moral absolutism which is not required for the successful functioning of science.

SOCIAL RESPONSIBILITIES OF SCIENCE

Now let me abandon Snow's device of asking a question, and simply discuss a few other facets of science as a social activity about which educated people are likely to be poorly instructed. Consider the matter of what is often called "the social responsibilities" of science. This is a matter about which British scientists were vitally concerned during the 1930's as a result of technological unemployment and which has agitated American scientists since the development of the atomic bomb. The issue is not yet resolved, however. Many scientists are still confused about what their social responsibilities are.

Before giving his account of what these social responsibilities can be, the sociologist would suggest that you note three essential facts about the relations between science and society. The first is that the social impact of science on other parts of society is inevitable. The good and the ill consequences of the necessary interaction between science and other social elements cannot be simply wished

away or ignored. They constitute a perennial "social problem," that is, a matter of desirable social arrangements and preferred social values, a problem which is not amenable to solution by the natural sciences as such. It is, in short, a problem for the social sciences.

A second fact we must note is that we often cannot predict, especially over the long run, the particular social consequences which some scientific discovery will have. For example, atomic science depends upon Röntgen's discovery around 1900 of X rays, yet no one could then predict this particular consequence of his discovery. Nor, to take what we all consider a "good" consequence of his discovery, could anyone then predict the use of X rays in cancer therapy. If you doubt that the social consequences of science cannot be predicted over any long run, you have only to read the discussions in even the most informed quarters of what is likely to result from our discovery of atomic energy or our socalled conquest of space travel. We simply do not know with any useful degree of specificity what is going to happen.

We do not know partly because of the third essential fact we must note about the relations between science and society. This is that the rest of society, because of science and for reasons other than the effects of science upon it as well, is also highly dynamic. As the rest of society changes from one form to another, it uses science in different ways, helping to produce now good social results, now bad ones. Because of the dynamic character of the rest of society, also, then, we have great difficulty in predicting the long-run consequences of scientific discoveries.

If we consider these three facts, it will be clear to us why neither scientists taken as a whole group nor any individ-

ual scientist alone can be considered responsible, in any sensibly direct fashion, for the social consequences of their activities. The enormous specialization and interdependence of the several parts of our society involve every one of us in responsibility for these social consequences. We are all, for example, more or less directly involved in the responsibility for war. The connection of nuclear scientists with war-making only seems more direct and obvious nowadays than that of some other groups in society. The phrase we often use, "the social consequences of science," is misleading, since it refers to social and political problems which can be managed only by the social and political process, to the extent that they can be managed at all. Even if they wished to do so, scientists could not be allowed, under the false assumption of exclusive responsibility, to preempt the political and social function in society. For as scientists they are no more competent in this function than other men-although sometimes no less. Certainly they are not experts in it by training, and very seldom by experience. Clemenceau once remarked that war was much too important to be left to the military. In the same sense, science and its so-called consequences are much too important to be left to the scientists. In both cases the instruments are too vital to our social purposes to be left wholly to those who are merely expert in using those instruments. They must be the responsibility of all who are concerned for our social purposes and the social processes by which we achieve them.

On this view, if we may look at the case of war a little further, some of us overemphasize the importance of science in the conduct and prevention of war. Although science has helped to change

the techniques of war continually during the history of man as much as it has changed all our other social techniques, war is a social reality all apart from the particular kinds of science it uses. War was evil long before the invention of poison gas, as Haldane pointed out just after World War I, when men were still debating the morality of the new techniques which science had produced for that war. Similarly, war was evil long before the atom and hydrogen bombs were devised, and it would still be evil if nuclear weapons were outlawed. The achievement of the millennium is not a simple matter of manipulating military technique.

Perhaps it is now clear, on the same view, that no one ought to ask, What is the social responsibility of science? That question can be rephrased: What contribution can scientists make to the social and political process of our society?

In a democratic society like the United States, of course, each individual scientist must choose for himself just what kind of responsibility he will assume as a result of his membership in the scientific group. It is of the very basic character of our society that social responsibility is largely a matter of moral obligation voluntarily assumed. holds for all of us, scientists and others alike. Our democratic values permit a great deal of exhortation to responsibility, but only a little compulsion. Now some individual scientists, like other members of the society, do not feel morally obligated to participate actively in the political process. In such a choice they are subject, to be sure, to the moral judgment of their fellow citizens. This does not mean, however, that democratic moral judgment should, or will, always condemn the socially inactive scientist. For, over quite a wide range of behavior, we do acknowledge that some of our fellows may be called by other compelling interests, by other values, than direct political or social participation. We do grant a great deal, that is, to the man who cares overwhelmingly for his work, particularly when we admire what he is doing. It would certainly be unfair not to grant this privilege to some, at least, of our scientists, since we grant it to other kinds of experts and specialists. We admit that the scientist has no peculiar or exclusive social responsibility.

Furthermore, even when he does wish to participate actively in social affairs other than his scientific ones, the scientist may justifiably claim the democratic privilege of choosing those activities most congenial to him and in which he thinks he can be most effective. Only a few scientists, for example, as a result of the restrictions imposed by their occupational specialization, can make a large contribution to direct political and social action. Yet some have done just this, at least for a little while in times of social crisis. During World War II, scientist-statesmen like James B. Conant and Vannevar Bush took on a great deal of responsibility in the Government's use of science. In such direct political participation, the scientist deals with social problems directly and helps to form social decisions, bringing to the process his expert view of science as a body of substantive theory and his wise familiarity with it as a certain kind of social activity. Such direct political responsibility by scientists, however few can assume it, is of the first importance to society.

Most scientists willing to undertake active social and political participation are limited to something much less than the part played by men like Conant and Bush. One of the more limited kinds of contributions scientists can make to the

social and political process is exemplified in the activities of the scientist-editors of the Bulletin of the Atomic Scientists. Scientists can study their subject with a view to understanding some of its social implications and to keeping the general public informed on such matters. Because of the great authority with which he is invested, the scientist is more readily heard by the public. He can, therefore, communicate the social meaning of new discoveries more easily than most other people. The physicist Louis Ridenour has described very well this particular kind of social responsibility. Speaking to his fellow scientists, he says, "It is necessary today to educate the non-scientific public to the Promethean nature of atomic energy and the true character of science. This education must be done so that all the people can participate in the decisions they will have to make concerning the organization of society in such a form that wars become less likely." In all such pronouncements scientists should, of course, be careful not to overreach the bounds of their competence and knowledge. Since scientists are often as poorly informed about the social and political process as the rest of us, they must acquire a better understanding of the limits of their knowledge in that area.

Among these few alternatives, then, of no direct social or political action at all or more or less limited action in social affairs, each scientist must choose his course for himself, considering his own competence, need, and temperament. The Nobel Prize Laureate in physics, Percy W. Bridgman, in speaking of the responsibility of his colleagues, was asserting a democratic right of all citizens when he said that society shoud not "insist on its right to the indiscriminate concern of all scientists with this problem."

In their adoption of one or another role with regard to social responsibility, scientists should avoid two different extremist positions because of the dangers they might raise for science. One is the position taken just after the end of the war by the mathematician, Professor Norbert Wiener of M.I.T., who publicly announced his intention not to publish any future work "which may," as he put it, "do damage in the hands of irresponsible militarists." This assumed a kind of exclusive responsibility by scientists for what society made of their work. The danger in this position is that their fellow citizens might take scientists at their word, become convinced of the evils of science, and then hamper science in the conviction that thereby they were only protecting themselves. Scientists who understand the limited nature of their responsibility will avoid the possibility of this boomerang effect. Another extremist position which can provoke unhappy effects for science is the "ivory tower" position, which holds that scientists are interested only in "pure science" and care not at all for the social results of their work. The danger in this attitude is that society might come to think of scientists as a group of irresponsibles, unwitting and therefore witless creators of 1984 or some other black utopia, against whom it also needs to protect itself. Fortunately, nowadays neither one of these extreme positions is taken by many scientists.

THE MORAL FOR EDUCATION

The obvious lesson to be drawn from this discussion is that education too is only one part of the political and social process and therefore neither has, nor should accept, exclusive responsibility for any difficulties with regard to the supply of scientists or other kinds of specialists in which the United States may find it-

self. The attitudes of our citizens toward science, the restrictions our class system put upon educational opportunity for some of our talented youth, the narrow economic self-interest that rules in many of our local school districts, the unwillingness of some religious groups to give adequate support to public education, and the failure of our federal government to take a variety of useful measures-these are some of the social factors, in addition to the shortcomings of education as such of course, which should rightfully bear the responsibility that is sometimes loaded directly and exclusively on education. The scapegoating of education will not produce that whole set of alterations in our society which is necessary for better scientific education.

But it has not been my purpose to discuss in general the social responsibilities of education. My theme has been the ignorance of the sociology of science that educated people in our society take for granted, along with their ignorance of the substantive theory of science. I hope I have illustrated my theme sufficiently with the brief discussions of serendipity, priority disputes, and social responsibilities of science. There are many more important things to learn about science as a social activity.

Earlier I suggested that I had a purpose as well as a theme. My purpose is to urge you, as specialists in the field of education, to take up both the obligation to learn about the sociology of science yourselves and the obligation to teach it to your students as an essential component of their knowledge of the world in which we live. The facilities for your learning are already available, in books and articles and in special courses. For example, in at least one of the courses in the Department of Natural Sciences in Teachers College, Columbia, elements of

the sociology of science are being taught. And more intensive work is available in courses and seminars in the Graduate Faculties of Columbia University. Moreover I feel sure that you will find it possible to teach some sociology of science not only to college students but to high school and even elementary school children as well. There is already in New York City one school which has devoted a whole semester of fifth-grade science to instruction and projects on the serendipity pattern.

After all, reflection on what has been said here will convince you that the essential facts are not so many, nor the ideas so difficult that their basic meaning cannot be taught to twelve-year-olds.

Also keep in mind something that all teachers, even those in graduate schools, tend to forget; namely, that what the scholars and teachers of one generation do not know at all or find it hard to understand may become obvious to their students in the next generation. Students do not have to unlearn all that their teachers have to unlearn before they accept new knowledge and new views of the world. It is easier to learn that the physical universe is expanding if you have not previously learned that it was stable. And it is easier to learn what the

significance of serendipity is in the creative process of science if you have not previously supposed that scientific theory was produced automatically by the mechanical application of scientific method.

In a society like ours, we have need for a great variety of highly specialized and competent people. There is always the danger that we may exaggerate the importance of one kind of specialist. There is the danger at present that we may exaggerate the importance of specialists in the theoretical substance of science. We need, as well as the natural scientists, specialists in social science, and among them specialists in the sociology of science. We need, still further, citizens and leaders and educators with an excellent and broad knowledge of American society and of the place of science in our society.

For these good reasons, then, with respect to both the substantive theory and the sociology of science, education faces a new frontier, as it faced one fifty years ago, and still another a century ago. Yours is an exciting, rewarding, but difficult prospect, as is true of all frontiers. As a social scientist, as one who is on another frontier of American society, I invite you to enjoy the rewards of life on your own important frontier.

Science Programs and the Development of Scientists*

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THE current discussion of science and the training of scientists in the popular press has become remarkably confused. This discussion includes careless overgeneralization of "high school"; failure to determine what is meant by "scientist"; the notion that science and mathematics are "harder" than other subjects; the idea that science teachers and mathematics teachers are less well trained than other teachers; the idea that there is an acute "shortage" of scientists and engineers. Anxieties about our national security are powerful-even blindingand are so intimately tied up with our popular notions about science and scientists that we might well be forgiven despair as we seek to unravel the various arguments.

Not far behind the current discussion in the popular press another almost as vigorous is taking place in academic groups: that of what to do about science for general education. This discussion has continued in academic communities, almost unabated, since the late 1920's. The argument assumes peculiar significance in light of today's concerns for science and the clear indication of unusual loads on

higher institutions during the years just ahead. In its best forms, the general education argument is a sophisticated one, and raises many questions which are being ignored or overshadowed by today's popular discussion. I have often thought that both these discussions should be involved in any general discussion of education for science and scientists, and I propose here to try to draw from both.

I would be less than honest, and certainly far from candid, if I did not invest a few paragraphs in description of the metaphysical position from which I am approaching the topic set me for this presentation. I shall try to avoid labels, but probably I shall be readily typed by those who have had at least casual acquaintance with philosophical writing and the history of science. I hasten to add that this description is not idle talk; it bears heavily on the topic under discussion.

First, I should like to state unequivocally that I am one of the "don't-fenceme-in" boys. To me, science is not a process of discovery of the immutable laws of the universe; it is not the careful, patient peeling of the onion to find the bud within; it is not the infinitesimal, limited human mind seeking to establish rapport with an infinite universe from which that mind is separated by a perme-

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able membrane consisting of the human senses. Quite the contrary. Science is the product of an extraordinary creative act—the action of relatively unfettered intelligence, constructing logically consistent, aesthetically satisfying intellectual structures which by suitable manipulation can be made to encompass present knowledge and to direct us to new knowledge.

If I appear to be a purveyor of academic gobbledygook, I beg your indulgence. If science is discovery and the careful recording of discoveries, it needs a certain sort of mind. If science is regarded as the continuing re-integration of timeless human endeavors to create a viable picture of the universe, the kind of mind needed for science is very different from the first. If one views science as a process of creation, school programs for science and the training of scientists will be vastly different from those which proceed from a view of science as a process of mere discovery.

A feature article in a recent issue of The Saturday Review emphasized this point. Its author went to considerable length to point out that people who regard the universe as a closed system Whose properties must be discovered by human intelligence, necessarily live differently from those who regard it as an open system, in which human intelligence is faced with the process of continuous creation—of continuous creation and test through experimental process. I shall not quibble: I belong to the latter school. For me, the business of science is that of creation rather than discovery; of aesthetic return as well as practical control of events; of excitement and freedom rather than dullness and rigid discipline.

Perhaps I can make my position clearer with a few statements which more or less

sum up my views concerning the nature of science.

First, a scientific fact is a human observation on which trained as well as relatively untrained normal observers agree. Many observations are vague, and predictions from such observations are therefore vague. Scientific facts are public, and are replicable. Formal admission to the domain of scientific fact is extremely difficult for events which happen only once.

Second, all scientific facts are open to restatement on the basis of further observation. There is no scientific fact which has been settled for all time.

Third, the principal tools for organizing scientific facts are formal logic and mathematics.

Fourth, scientific laws and scientific theories are creative human attempts to organize and to predict scientific facts through logic and mathematics. Occam's razor is the criterion for selection among laws and theories: the simplest explanation is the best explanation. Scientific laws and theories also are subject to restatement on the basis of further observation.

Fifth, all scientific prediction involving measurement can be carried out only to accuracies within the errors of those measurements.

At best these statements will bracket me with the positivists; at worst they will brand me as an exponent of the simplest sort of solipsism. Needless to say, I hope that most will do me the kindness of placing me in the first of these categories. To thoroughgoing idealists, however, this distinction undoubtedly will appear to be of small moment. In any case, it should be clear that I am working from a view of science in which the "discovery" activity is low and the "creative" activity is high.

No matter how hard I try, I cannot escape in the history of science the record of a richly human effort to produce an effective system for prediction of new human experience. When I read of Tycho Brahe's patient efforts to collect public and replicable astronomical data; of the brilliant insights of Johannes Kepler which synthesized those multitudinous observations into the famous Kepler's Laws; of Sir Isaac Newton's prescient hypothesis of a universal gravitational force—a hypothesis which made possible mathematical derivation of Kepler's Laws -I get a sense of intellectual development, of human creativity in ideas, of an on-going construction job, if you wish, in which we all can share, if only as sidewalk superintendents.

Of course it is very easy to report the Brahe-Kepler-Newton succession as a succession of discoveries. To do so, however, is to ignore the remarkable effectiveness of the earlier Ptolemaic synthesis of astronomical observation, and to fail to recognize the extraordinary significance of our dependence upon simplicity as a criterion for selection among scientific theories. Today's satellite launchings and tomorrow's trips to the planets will perhaps give us the ultimate test of this criterion.

As I observed earlier, this philosophical discussion is of the utmost importance to the topic at hand. It makes literally a world of educational difference whether one's view of science is that of discovery or that of creation. For discovery, an educator should seek a disciplined mind—one which follows the rules and the maps, a mind which moves ponderously from the known into the unknown, with each step carefully planned, carefully directed, and carefully recorded. For the creative act, the educator must search for the winged mind: the

mind which is challenged by daring, the mind whose thrusts of imagination are disciplined and guided by an awareness of the past and of the paths we have trod, to be sure; but a mind which can break with history.

How do we come by an atomic reactor? Is it by the painstaking accretion of facts gathered behind Becquerel, the Curies and their followers, through generations and generations of graduate students and dust-covered dissertations? Of course it is, in part. But it is also through the extraordinary leaps of the intelligence of an Einstein and a Fermi; through the courageous break with classical tradition of a Planck and a Bohr. Which of these is the more important, the pedantic, runof-the-mill, routine of the fact gatherer, or the brilliant, high-arching intelligence of the great theorist or experimenter? The history of science is not clear on this point; it records merely that Brahe came before Kepler; Kepler before Newton; Balmer before Bohr. It is often asserted that genius is always about us that it is the state of human knowledge which makes genius operable and produces the Leibnizes, the Newtons, the Kants, and the Einsteins. Perhaps this is so; but in any case, the current domestic and international situation seems to suggest that at this point in education we should, as we say in football, "play for the breaks." The game, of course, is the continuing human effort to understand and control our experience; the "breaks" are the occurrences of the gifted and vigorous intelligences through which we advance our understanding and control. Our education should be one which increases the likelihood of developing the Bohr, the Planck, the Einstein, or the Fermi.

Is it possible to design an educational program in science which plays for the

breaks in this game of transcendent national importance and cosmic dimensions? I think so, and I would like to lay before you three design principles which might guide development of an educational program which could be expected to increase the frequency with which we can identify and illuminate the creative mind in science. In the remarks which follow immediately, I propose not to bind myself with "practical" discussion, but rather to describe situations which would perhaps obtain if we were not hampered by present considerations in school organization, curriculum structure, and the like. At this stage of my presentation, I should like to follow old Omar's dreamto shatter this sorry scheme of things to bits, and rebuild it nearer to the heart's desire. In a later section, I shall try to relate this rebuilt scheme to things as I think they are in modern American education.

A conviction that science is basically creativity would produce an educational program in science which rewards creativity. The essential activity in such a science education program would be individual observation by the student, integrated with efforts on the part of each student to create his own world picture from observations which he had made for himself. The role of the teacher would be that of constructor of situations in which observation and organization could take place, rather than that of the expositor of knowledge, or the director of reams of reading and hundreds of "learning exercises." The educational em-Phasis would be on the act of creativity in the mind of the student.

To play for the breaks, such a science program would involve all school-age youth, but it would provide for them a broken field in which to run. The break for which we play is the occurrence of

the unusual mind, and we shall not have the breaks unless student involvement is as rich as possible and as unconfining as is practical. Therefore, such science programs would accommodate widely varying rates of learning together with a wide range of fields and depths of interest among the learners. Group work would be designed for the special kinds of growth, such as social and emotional maturation, which are encouraged by such work; there would be very little of the assignment of a single group of intellectual chores to a large number of learners. Equipment provision would be rather rich and plentiful; materials and tools for the construction of experimental equipment would be readily available. The science periods at pre-college levels would not be the few minutes per week assigned in the elementary grades or the fifty-minute periods of the junior high school and high school; rather, they would be periods of two or three hours in length, and might be separated by a day or two in the weekly schedule of a school.

In such a program, rewards would be keyed to creativity instead of to conformity. The teacher's personal approbations, the letter grades, the performances on the school rostrum, the newspaper reports—all these would go to the youngster with the creative mind, rather than the one who most nearly does what the teacher tells him. Ingenuity would be rated above error: the youngster who worked out Lamarckian evolution for himself would be recognized beyond the youngster who learned Darwinian evolution from a book.

From this thumbnail sketch, you doubtless have already derived my three principles: that a science education program should be science, not about science; that the program should include all learners, but should be administered in

such a way that each youngster progresses at his own rate; and that the system of rewards and penalties should be derived from the nature of science instead of from the usual schoolroom virtues.

The central curriculum of the ideal science education sequence would, in my view, be principally a curriculum of methods in science. Scientific facts and laws are not immutable; they are subject to redefinition and reinterpretation on the basis of continuing inquiry. The techniques by which facts, laws, and theories are refined, tested, restated, and reverified are clearly more persistent and therefore more significant than the facts themselves. Lest I be suddenly attacked through the argument of the 1920's and 1930's that this is a proposal for all method and no content, I should like to add that scientific methods cannot properly be learned in a fact vacuum: any attempt to develop young people along the lines set out earlier will require acquaintance with scientifically validated fact-a great deal of scientifically validated fact. While science facts might be relatively undifferentiated by field at lower educational levels, selection by field would still be made at any desirable level of refinement, in high school, college, and graduate years.

Nevertheless, an effective modern science curriculum must be built principally through development and explication of the methods—the techniques—through which the modern scientific edifice has been built, for these are the persistent elements in what we now know of science. The atom of 1890 is not the atom of 1958; the chemical element of 1870 is not the chemical element of today. The cancer of 1930 is not the cancer of 1958, and the human physiology of 1920 is not the human physiology of today.

A brilliant paper by Professor Schwab of the University of Chicago relates directly to the problem at hand.1 In this paper, Professor Schwab identifies four kinds of scientific method: (1) taxonomic science, which seeks to establish a classificatory scheme as its form of scientific knowledge; (2) measurement science, which has as its aim the measurement and consequent co-relating of changes in two or more varying and objective quantities; (3) causal science, which is found wherever some system of mutually interacting and mutually determined parts acts as a concerted whole; and (4) relational or analogical science, which invents mechanisms not directly accessible to observation in such a way that it can be said that certain things behave as if these mechanisms exist. It must suffice here to emphasize the fact that careful examination of historical investigations makes possible a taxonomy of scientific method, if you please, and that at least four kinds of thought-patterns are identifiable

through such investigation.

Interestingly enough, these four kinds of scientific method—taxonomic or naming science, measurement science or scientific laws, causal science, and relational or model-making science—are relatable. Taxonomic science is the simplest; it is included in measurement science, which in turn can be included in causal science, which finally can be included in relational or model-making science.

Also, these four kinds of science are related to each other in a series of ascending complexities. Taxonomic science is much like that of the early efforts of a growing intelligence to encompass the common noun. It is quite appropriate to

¹ Joseph J. Schwab, "The Nature of Scientific Knowledge as Related to Liberal Education," The Journal of General Education, Vol. 3, No. 4, July 1949.

regard taxonomic science as much like learning to read. This is the kind of thought-pattern in which a child learns to assign acceptable names to groups of experiences or groups of data. Measurement science is more sophisticated, for it requires arithmetical experience. Very elementary examples are the prediction of areas through multiplication of length and width; the computation of electric bills from lamp sizes and hours of operation. Causal science is exemplified by the relation of bodily systems to the states of organisms as wholes; of reagents in a chemical equation to end-products of a reaction. Examples of relational or analogical science include the construction of solar systems, of galaxies, and of atom models.

Obviously, the scientific facts through which control of these four kinds of scientific methods are developed would be chosen widely, so that most kinds of scientific facts would come within a learner's view as he moved upward on the methods-development ladder. Physics, chemistry, astronomy, botany, zoology, and geology all would provide representative materials with which a growing mind could interact as it sought to encompass and to develop for its own use the precipitate of our hundreds of years of experience with scientific effort.

The correctly ordered science education program would begin very early—at primary levels—with taxonomic science and would grow through carefully ordered sequences of experiences to effective model building and mathematical analysis of those models. After the learner had developed control of this battery of methods, he would continue to build skill and sophistication in their use. The factual materials would become steadily more complex and specialized, the analytical problems more and more subtle. Finally

the learner would find himself standing before that part of the great continuing mural of science which he himself could hope to paint.

Much of current educational investigation could be related to construction of such a methods-based science education curriculum for the earlier school years; for investigations in reading and in arithmetic in many cases fit readily into some of the scientific methods described earlier. Much of the general education effort of recent years can be brought to bear on the high school and college years.

In the ideal science education program, there would also be accommodation of various types of personality structures. I should like to quote from Dr. Anne Roe, who reports that in her sample of outstanding scientists,

In general personality structure, it appeared that biologists have an orientation which strongly emphasizes reliance upon rational controls. Both of the other groups [social scientists and physical scientists] tend to be uncritical people, with much less insistence upon rational control and rather less of it. The physicists are often anxious and neither interested in people nor very good at relating to them in general. The social scientists are deeply concerned about human relations and also troubled by them in a way quite foreign to the other two groups, who prefer to maintain some distance and generally succeed in doing so quite guiltlessly.²

Thus a rigid prespecialization science education program which produces the ablest physicist may very well not produce the ablest social scientist or the ablest biologist. Scientists are human beings and each has his idiosyncratic tastes, values, and needs. To develop scientists effectively, the ideal prespecialization science education would be flexible enough and sensitive enough to person-

² Anne Roe, The Making of a Scientist (New York: Dodd, Mead & Co., c1952, 1953), pp. 233-34.

ality needs to provide the prospective biologist with appropriate experiences and rewards, as well as to provide the prospective physical scientist and prospective social scientist with his own special kinds of satisfactions and rewards.

It may sound as if my remarks are intended to apply only to pre-collegiate education, but they are not. I am trying to describe a science program for all levels-from grade one to the Doctor's degree. My position is simply that the best bet for locating and developing scientists is a real science program, involving as many students as possible, in which able minds are free to move as rapidly as they can. Clearly, such a science program is forced upon our educational institutions by the needs of all our people, as well as by our need to "play for the breaks." Our problem is that old educational bugaboo: how to teach at once for the few and for the many. I shall treat this problem again a little later in this presentation.

A modern school science program obviously could not be conducted in isolation from learning programs in other fields. Also, it is very doubtful whether a program which rewarded ingenuity, creativity, and rapid learning rates in science could fail to influence the organization of programs in other fields of learning. Equally obvious is the fact that a science program built on these principles would require a teacher whose intelligence is high, whose competence in science is high, and whose sense of psychological security is unshakable.

Thus an attempt to organize a science education program on these principles would probably require adjustment of an entire school administration pattern to individual learning rate of students, to emphasis on creativity, to reward for innovation, and to effective stimulation of the

teaching staff. Though I have sought to develop this conclusion from premises which in several cases are attached to the nature of modern science and the history of science, it should be abundantly clear by now that these characteristics of effective science programs can readily be translated into present educational concerns for accommodation of individual differences among learners, and for rewards attached to more sophisticated value systems than those commonly used.

Laying aside for the moment the consequences in educational programs of the assertion that science education programs should be real science, what I have proposed here, of course, is an educational structure which seeks to apply what we have long been saying in educational design: that every educational program ought to allow maximum freedom for the development of individual capacities. It is a remarkable fact that of all the things known to modern educational science, none is more firmly established or more widely accepted than the fact of individual differences among learners; and that probably no fact is less well recognized in school organization and school operation than this universally accepted fact. I shall have additional comment on this point a bit later.

When one turns from this proposed science education program to existing science programs, interesting contrasts appear almost immediately. Probably the first and most conspicuous of these is the remarkably small amount of time given to the development of science and scientists in the typical pre-college school program in the United States today. The average weekly time allotment to science in the elementary schools of the United States probably is less than 5 per cent of the students' time in school, and it is well

established that high schools and colleges typically require only a little larger fractions of student time in science-around 10 per cent. Perhaps the next most conspicuous fact is the remarkable lack of emphasis upon methods of science in modern prespecialization instruction in science. Apparently, the operational definition of science used by most educational units in the United States is that science consists of a block of informational items which have been twisted out of Mother Nature by a group of people called scientists, and handed on to posterity for easy consumption by genera-

tion after generation.

Another remarkable feature of prespecialization science education in the United States is the fact that science and mathematics somehow have become a bootlegged program for brighter youngsters. Though it now is easing a bit, the opposition to ability grouping in the lower schools has been great, and in the place of frankly designed work for brighter students in all fields, certain curricular areas have historically been pressed into service for training abler youth. If one proposes the redesign of high school or freshman college chemistry, physics, or mathematics to make possible broad-scale recruitment of prospective scientists and mathematicians through involvement of an entire student body in such activities, one very frequently is met with the query, What will we do with our bright kids? In my own view, the unreflected use of elementary mathematics and physical science as programs principally for brighter youth is a national calamity of the first magnitude. Not only has such use been responsible in large part for the scientific illiteracy which is now so much lamented, but it also has sharply restricted our supply of able scientists.

To my way of thinking, however, the

most serious defect of science below graduate levels in the United States is its remarkable formalism and lack of intellectual vitality. It is not uncommon in elementary science courses, whether of high school or college level, to find the authority of the teacher and the textbook drawings replacing the phenomena of the microscope stage; to find the "correct" answers of the textbook replacing those of the student's own observation. It is no stretching of the facts to say that much of modern pre-collegiate and collegiate science is really anti-scientific-that it is in fact a neoscholasticism in which the thinkers of the Middle Ages would be very comfortable indeed. The blithe spirit of science does not walk among our elementary classes; its habitat seems to be only the graduate schools of our better universities. I should like to observe that this fact somewhat restricts the access of prospective scientists and the general

public to that blithe spirit.

It is really quite remarkable that the science curricula we commonly use in the United States and the reward systems which our schools typically follow produce any creative scientific intelligences at all. By the time our standard age groupings, textbooks, workbooks, and recitations have had their way for a few years, a student of capacity has learned that his principal task is to find the right answer and keep his head down, unless he plans especially to please his teacher by explicit or even exaggerated accommodation to her wishes. Our school system, from the first grade through much of college, provides far more reward for conformity than it does for creativity; in fact, innovation, creativity, and intellectual vigor are often punished rather than supported in the schools. As a result, modern programs in science and the development of scientists have very

hard going in today's education. This is of course a highly personalized judgment, and I ask only your check of it against your own informal observations.

Further, I think it does no good to rush into an attack on the schoolmen in an effort to remedy the situation. Whether the field is language arts or science, the reward of conformity as contrasted with creativity seems to be in keeping with the popular American view of the function of the school. For further explication of this point of view, I refer you to William F. Whyte's The Organization Man and to Max Lerner's recent America as a Civilization. At any rate, this digression has gone far enough, for I am not in position at this point to undertake a critique of American value systems and their impacts on the schools of the United States.

However, educational technology has advanced to a level at which it is no longer necessary to require conformity and the educational lock step. Two new techniques recently made available to us have made it possible to treat an entire school program in ways which would permit a modern science program to thrive—ways which permit teaching at once for the few and for the many. These two new technologies are the technology of evaluation and the technology of data handling.

It is now quite practical to consider the management of an elementary school or a secondary school as large as a thousand students or so in terms of the individual growth patterns of the learners, instead of in terms of the organization of curriculum time units. Imagine yourself to be the principal of, say, a six-year high school (or make it an elementary school or a college, according to your taste), faced on the first day of the fall term by an assembly of a thousand young people.

Let us imagine that you are not committed at the moment to any particular set of studies: that-perish the thoughtyou do not have a time and subject schedule all ready for these youngsters to be fitted into. I suspect that if you were a well-trained schoolman in this particular situation, thinking about how you would best go about planning the forthcoming year's work for your young charges, you would be most impressed by your knowledge that the group facing you included people who read as well as college seniors and people who read as poorly as third or fourth graders; that some of the younger people before you had mathematical skills well beyond those of an able high school graduate, while some of the older ones were still having trouble in the basic generalizations of number. I think you would be impressed by the enormous range of physical development which could be readily observed in the group, and by the remarkable range in social development observable in the group. My guess is that if you were thinking seriously about this matter, you would not for very long consider grouping these youngsters by chronological age, and sending them to their learning activities in groups in which age was the principal criterion for group formation.

On the contrary, I would suspect that you would be inclined to find the young people who were very able in mathematical thinking and to try to teach them in groups large enough to keep cost down, but small enough to keep variation among members of the group at a minimum. I suspect that you would find the fast and able readers and that you would teach them in ways quite different from the ways you would employ with the slow readers. And I suspect that you would try to find ways to group together young people who had similar interests, so that

those who had strong interests in science and mathematics would be able to work together rather more than less, and those whose interests were strongly in the humanities would have similar opportunities. It would be likely, too, that you would be trying to organize learning groups in which physical development was the selection criterion for group formation, and perhaps other groups in which social development was the primary criterion for teaching—learning group formation.

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This is not an unusual dream for school grouping, in terms of what we know about individual differences among learners, but it is clearly not the usual six-year high school. Let's push this hypothetical problem a bit farther. Suppose we identify fifteen different lines along which we would like to have our young people developing, such as skill in scientific modes of thought, mathematical skill, skill in language, physical skills and the like. We either have instruments or can build tests and evaluative schemes to determine how well our youngsters are progressing in these fifteen directions. With this group of instruments, we can know at any given time, with considerable precision, where each youngster is along the development line set out by each of these established school aims. In addition to the kinds of instruments just described, we already have instruments which are quite reliable in the measurement of general learning ability, interests, and aptitudes. If you had, say, eighteen measures for each of the thousand youngsters in our hypothetical school, you could make up groups-based on intelligence, interest, aptitude, and achievement in each particular field. Chronological age of students and competencies of the teaching staff could also be included in criteria of group formation if desired. The range of abilities and interests, by field of learning, could be controlled in each teaching-learning group. Groups could be large or small, depending on the kinds of learning to be encouraged.

At this point, the experienced educator will certainly raise questions about the clerical work involved in such an operation—but I'm sure he would have to agree that the difficulties of managing the grouping problem in this way are solvable in principle, as physicists say. We know how to get the information we need, and we know what to do with the information after we get it. This is the modern technology of educational evaluation at work.

The really new item is that the clerical problems are now solvable in fact as well as in principle. High-speed test graders and high speed data-handling equipment have recently become generally available. The eighteen thousand tests required for our hypothetical school are only a minor chore for a modern test-grading machine. The collation of the data derived from the tests is only a brief assignment for a modern data-handling machine. In short, what previously was only a theoretical ideal because of the extraordinary clerical loads involved in bringing it about has become a very real possibility, owing to the invention of certain mechanical devices. Not only can such testing be easily carried out once each year; it can be done as often as desirable. Groups can easily be reshuffled as necessary, because of the very small amount of time required.

Let us return for a moment to the foot-ball analogy. A continuous student evaluation and regrouping process would be like the broken field; it puts each runner into the secondary as soon as he enters the game. Thereafter, each runner moves according to his own running skill. The

whole playing group moves down the field at maximum rate. Or, to return to educational language, such a scheme does not require special provision for abler youth or for slow learners; the entire process is operated to provide continuity of best learning conditions for each practically determined category of learners.

By now you have begun to realize that, in my view, a large part of the problem associated with construction of effective programs for the development of scientists is administrative rather than curricular. I do hold this conviction: the major problems involved in the accommodation of modern science in the curriculum and the problems involved in the development of the abler components of our school-age youth are much more intimately associated with our ideas concerning proper school organization and school operation than they are with particular curriculum structures and particular learning materials.

For years it has been apparent that chronological age is one of the less promising bases for grouping of youngsters for learning tasks-whether they are intellectual tasks, physical tasks, or social tasks. Admittedly, this is the simplest way to group, for it fits neatly with legal requirements for school attendance, it simplifies dealing with parents, it places minimum load on the school administrator. By all odds, the easiest way to set up a school is to bundle youngsters in lots of twenty-five or thereabouts, assign them to an older person, and move them around through a set of standard rooms and a fixed time schedule. But this is not a scheme which requires each youngster to learn at his own best rate-which keeps him at the cutting edge of his capacity and his learning opportunities. This is a school administration pattern in which of necessity conformity to the group becomes the basic criterion of success for the learner.

The defects and difficulties of this system have not always been clearly visible. In fact, it is a system which was virtually required by the forces of the enormous school growth of the past half-century. Breaking with this system will not be easy, for schools are governed principally by stereotypes in the minds of the professional staffs and the general population. It is not easy even to think of different ways of operating schools, much less to gain public acceptance of those new ways, regardless of student need, national need, international stress, and changes in available technologies.

Science has unquestionably come of age, and the tasks of our schools and colleges have been permanently altered by that maturation. No longer is it possible for any thoughtful school person anywhere in the United States to suggest that adequate development in science for young people be delayed until some other time at some other place in the school program. No longer is it possible for any responsible educator seriously to suggest that abler young people can be depended upon to look after themselves, so that it is not necessary for schools and colleges to attend particularly to their development patterns. However, in nearly every school and college, incorporation of an effective program in science and the development of scientists will introduce processes and values which will necessarily reshape the entire institutional structure. The patterns of our society and our international difficulties argue powerfully that we have little choice other than to undertake such reshaping. We are being forced into sharp breaks with our educational past.

Under the enormous pressures of our times, we are relearning some things we

knew once before: that high intellectual ability is where you find it; that in the interests of an effective democracy intellectual ability at all levels must be developed; that our entire nation must be educated as swiftly as possible in the basic thought modes and the basic knowledges of the science and technology of our day. These are things which Thomas Jefferson knew about and wrote about; and they are the things which in part produced the first Morrill Act, the far-reach-

ing educational act passed by our Congress in the midst of its preoccupation with the Civil War—a preoccupation which certainly was not less than that of the Congress of today.

In our anxiety to insure opportunities for education for everyone, we have lost sight of these three great truths. We are rediscovering them now, in our vigorous national debate on education. Let us hope that the rediscovery has not come too late.

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Science for All Children and Youth*

WILLARD J. JACOBSON

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ALL children and youth should have some opportunity to study science. Why? Primarily because of the nature of science and scientific endeavor. Science is the investigation and interpretation of events that occur in our natural, physical environment and within our bodies. These kinds of events are important in the lives of everyone. To investigate and interpret some of them is a liberalizing experience that has a place in the education of all.

Science for all children and youth is general education. Effective, challenging programs of science education are important for the welfare of our communities, regions, and nations and for the survival of cherished freedoms. However, these science experiences are important primarily because of the contributions they make to the lives of children and young people. One of the first steps in planning science programs for all children and youth is to explore and clarify some of these contributions.

Science experiences for all children and youth should be of general interest and value and lead into investigations and interpretations of events in the nat-

* Dr. Jacobson is President of the Council for Elementary Science, International Association for the Education of Teachers in Science. Promising Practices in Nutrition in the Elementary School, by Jacobson, Boyd, and Hill, was published recently by the Bureau of Publications, Teachers College, Columbia.

ural, physical environment that are of benefit to everyone. From these investigations and interpretations, children and young people should gain some acquaintance with methods and approaches that have been used with considerable success in science. While the experiences in general education are for everyone, the doors must be kept open to children and youth who may seek their life work in some area of science and technology. These considerations, and others, make planning for science for all children and youth a task to challenge the resourcefulness and ingenuity of professional science educators.

CONTRIBUTIONS OF SCIENCE EDUCATION .

Children, parents, and teachers should ask, What are the contributions of science education to the education of all children and youth? Why should valuable time, effort, and money be expended to investigate and interpret natural, physical phenomena? These questions deserve answers, which in turn serve as guides in planning science programs and developing science experiences.

Building a World View

Man is a part of the natural, physical world. If our view is limited, we see only ourselves. As we develop a world view, we see ourselves as a part of a much

larger and more complex world. Our stature is enhanced, not diminished, as the breadth and depth of our understanding increase.

Once man saw himself as a unique organism unrelated to any other living things, and he considered his place of residence the center of a small and limited universe. With this restricted point of view it was difficult to approach the study of himself and other living things, and there were no other worlds worthy of exploration. Enhancement was sought through status rather than through accomplishment.

Now, man is viewed as related to the rest of the living world. The physical principles that are used to study the animate and inanimate environment have proved to be of great worth in the study of the human body. In the modern view our place of residence is one of the nine planets that revolve around a mediumsized star in one of the billion or more galaxies in a universe of tremendous, perhaps infinite, dimensions. The doors are open to an exciting exploration of at least part of the vast and complex universe in which we live. Our children and young people will take part in the adventures that lie ahead.

It has been suggested that children learn to "make sense" of the environment in which they live in a way that is somewhat similar to the process by which concepts have been developed in science. The science experiences of children in school should contribute to the development of a view of the world that is consistent with views of the world and man developed in modern science.

Methods of Science and Children's Experiences

Perhaps there are good reasons why the International Geophysical Year has been one of our greatest achievements in international cooperation. Scientists from almost every nation have worked together with a minimum of bickering and with considerable cooperation in their study of the planet on which we live.

Most scientists agree on how to test the validity of any suggested answer to a question or proposal for action or experimentation. It is an empirical test: when observations or experiments are carried out to test a proposal, does the hypothesis work? For example, a classical hypothesis has recently been rejected. Some textbooks contain diagrams of the circulation of the earth's atmosphere which indicate that there are no winds across the equator. This implies that there is a minimum of mixing of the air masses in the southern and northern hemispheres. A study of the circulation of air within the atmosphere through tracing the spread of radioactive materials from nuclear tests shows that there is a mixing of the air over all sections of the earth. The hypothesis has not withstood the empirical test, and most scientists who have studied the question accept the evidence of the flow of air across the equator.

Children and young people should have an opportunity to work in areas where their ideas must be put to an empirical test. A group of children were very interested in a litter of new-born rabbits. They discussed their color, size, and the kind of care that they needed. One of the boys asked, "Can we find out how many are boy rabbits and how many are girl rabbits?" The teacher, not being very anxious to get into this area of discussion, said, "Perhaps we can do that after the

¹ See, for example, John Navarra, The Development of Scientific Concepts in a Young Child (New York: Bureau of Publications, Teachers College, Columbia University, 1955), p. 122.

rabbits are a little older." In the days that followed, the same boy repeated the question a number of times. Finally he asked, "Why can't we find out how many boy rabbits and how many girl rabbits there are? I know how to do it." The teacher decided that this question might as well be dealt with. "All right, how do you tell which are boy rabbits and which are girl rabbits?" The boy gave his answer with an air of assurance, "It's simple. We can vote on it!"

Children and young people need a chance to study questions and problems where their ideas are subjected to tests and checked with empirical evidence, "hard facts." We decide some questions by voting, but two and a half billion human beings can be wrong. In some cases we go to empirical evidence to check and test our ideas.

Science Experiences and the Growth and Development of Children and Young People

We are often criticized for being much more concerned about what other people think than about what we as individuals think. Some recent studies paint a rather frightening picture of this concern of young people. When the question, I wonder what they think? becomes more important than What do I think? it is a matter of just concern for educators.

Children need to have a chance to investigate questions that they ask, to consider many different aspects of them, and to try many different possible answers until they become quite certain of *their* answers to the questions. For example, many children have had the experience of filling a tumbler with water, putting a

card over it, and holding the tumbler upside down. The pressure of the air on the card holds the water in the tumbler. One girl asked, "How much air can you let into the tumbler and still have the water stay in?" The teacher had never thought of this question, but she asked, "How can we find out?" The answer was, "Try it." The children gradually let more air into the tumbler, and soon found that they could let almost all of the water out, but still the card would be supported by the outside pressure of the air. The teacher asked them to check various science books to see if others had had the same results. They found no record of this experiment in any of their books, but they had studied the question thoroughly and were quite certain of their results. Science is one of the areas of the curriculum in which children and young people can learn to know what they think about various questions and issues.

A good science program can also help children and young people to achieve optimum physical growth and wellbeing. Many children, for example, are being handicapped by inadequate nutrition. The ones who grow restless and fidgety at about eleven o'clock in the morning may have had little or no breakfast. Those who are often absent because of colds and other minor illnesses may be paying part of the cost of mild malnutrition. In a recent survey of the eating habits of children in a school in the New York region, 70 per cent of them were found to be receiving inadequate nutrition. At best, these children are living and learning under serious handicaps; possibly their physical and intellectual growth and development are being stunted. In science, children and young people can have experiences that will help them to achieve optimum growth and

development.

² See, for example, H. H. Remmers and D. H. Radler, "Teenage Attitudes." Scientific American, Vol. 198, June 1958, pp. 25-29.

Participation in Developments in Science and Technology

From a historical perspective, the acceleration of the rate of discovery and development in science and technology in recent times has been phenomenal. Oppenheimer has estimated that the amount of tested scientific information available is doubled every ten years.³

Developments in science and technology have made a tremendous difference in our way of living and in our outlook upon the world. Developments in the past fifty years in such fields as medicine and public health have lengthened the average life expectancy from forty-nine to sixty-nine years. More efficient internal combustion engines have revolutionized our way of living by making possible rapid and convenient transportation over land and through the air. The understanding and control of electromagnetic radiation have made possible the transmission of sounds and pictures at the speed of light. Harnessing the energy of the nucleus of the atom may give us almost inexhaustible sources of energy. These are some of the results of the great activity in science and technology, and there are more to come.

The study of science should make it possible for everyone to participate in, and perhaps contribute to, the fascinating endeavor to gain a better interpretation of the universe in which we live. Children want to know about animals and plants, rocks and soil, electricity and magnetism, the sun and stars. Scientists are studying these same phenomena as well as probing the exceedingly small and exploring the very large and distant. Science in general education should develop

scientific literacy so that all children and youth can participate in this adventure.

Some of our young people will eventually contribute to the development of various fields of science and technology. General science should help to keep doors to the future open and to provide a basis for choosing the proper door. General courses in science will provide a base from which some young people can prepare to contribute in various fields of science and technology.

Science Education and Future Policy-Making

In a democracy, the basic policy decisions are made by the people and by their representatives in government, and it is essential that the people who make these decisions have a chance to become well-informed and make intelligent decisions that are consistent with the broad generalizations and principles of science.

Many of these policy decisions involve science and technology. Most issues related to agriculture, national defense, aeronautics, conservation, civil defense, power development, flood control, public health, and space exploration involve matters related to science and technology. A major issue in the 1956 presidential campaign centered around the testing of nuclear devices and weapons. Intelligent resolution of such issues requires an understanding of how to approach them intelligently, a grasp of some of the basic scientific principles, and an ability to apply the principles to specific issues. Science for all children and youth should prepare young people for these responsibilities of citizenship.

SCIENCE PROGRAMS FOR ALL CHILDREN AND YOUTH

At present science programs for all children and youth are most often devel-

³ Robert Oppenheimer, "Science and Our Times," Bulletin of Atomic Scientists, Vol. 12, September 1956, p. 237.

oped in kindergarten through the tenth grade. These programs usually involve experience in elementary school science, general science, and biology. In some schools there are also general courses in the physical sciences. Usually, elementary school science experiences are developed by general classroom teachers, while experiences in general science, biology, and the physical sciences are developed by science teachers. Science programs range from unimaginative, haphazard experiences developed "when there is time," to a wide variety of carefully planned activities in classrooms, in laboratories, and in the field. In few situations, however, is there an integrated program for science experiences which offers all children and youth a chance to explore in various sciences, including important new ones, and to build systematically on their previous experiences. It may be that the greatest challenge that faces science educators is the development of effective science programs for the elementary school and the early years of the secondary school.

Planning effective science programs that make the maximal contribution to the education of all children and youth is a complex undertaking. It involves an understanding of young people-their developmental characteristics, interests, drives, and previous experiences; an understanding of what is necessary or desirable to become an able citizen-the kinds of issues that citizens need to be prepared to explore and understand; an understanding of the total school program-the kinds of experiences that children have previously had as well as their experiences in other areas of the curriculum; an understanding of science-the broad, sweeping scientific generalizations that are deemed to be most important, and the new and fascinating recent developments in science and technology.

Only two characteristics of effective science programs will be discussed here. These programs should be flexible and, at the same time, carefully planned: flexible so that children and teachers can have freedom to investigate and study the timely questions and problems that arise; carefully planned so that children and young people can explore new and unfamiliar areas of science.

Flexibility in Science Programs

There should be enough flexibility in science programs so that interesting, challenging questions and problems that are identified and asked by children and young people can be discussed, investigated, and studied. The most important purpose of education is to encourage and help people to learn and to grow. The true test of a good teacher is whether or not children or young people learn and grow as a result of their experiences with him. To promote such learning and growth, the teacher must work with children "where they are," which means working with the questions and problems that they identify and raise. Our planned science programs should have the flexibility to make creative teaching possible.

At the time of the launching of the first earth satellites, some children raised the question, What keeps the earth satellites from falling to the earth? This was a timely, interesting, and fruitful question. The course of study did not make provision for considering it; if it had made such a provision, the chances that a class would have been studying this question at the same time the first earth satellite was launched would have been small. The teacher, with the help of some children's science books, worked with the children as they learned about earth satellites and the balance of forces that keeps the satellites revolving around the earth. In his school, flexibility of program made good teaching possible.

With a flexible approach considerable attention can be devoted to methods that are valuable in studying questions and solving problems. Children and young people need to become aware of useful sources of information, techniques of observation, the nature of controlled experiments, and methods of analyzing data to determine the degree of certainty with which we know. There has been criticism of the concern of educators with methods. If methods were the only concern of educators, this criticism might be justified. On the other hand to ignore methods is to disregard one of the most important aspects of our work with young people. All children and youth should have an opportunity to learn some general ways of approaching and dealing with questions and problems in their natural, physical environment.

More children and young people should have an opportunity to work intensively in some area of science with a teacher who also has an interest in that area and has developed some competence. To ensure that their teachers have such interests and competence, one school system will consider as prospective science teachers only those who have a sciencerelated hobby. These teachers are encouraged to work with the children and young people who have an interest in this area of science. For example, over a period of years a group of children and young people in that community have had an opportunity for very fine experiences in the field of astronomy. They have had a chance to learn how to approach questions and problems in the field of astronomy, and they have been exposed to the infectious enthusiasm of a person who is keenly interested in a particular field of study. Ideally, a school

should afford all youngsters an opportunity to work with a teacher who is keenly interested and competent in the area in which they are deeply interested.

A Planned Program of Exploration in Science

Children and young people should be provided an opportunity to explore areas of science with which they have little or no acquaintance. In one classroom various kinds of magnets were spread around the table. A small group of children came in and asked, "What are these?" The reply was, "They are magnets. Let's see what we can do with them." We found that certain substances—nails and other steel objects-were attracted by magnets and others were not, and we developed many experiences that helped us to gain a better understanding of magnetism. These children were keenly interested in studying magnetism, even though they were not familiar with the term "magnets" when they entered the room. One of the important functions of science experiences is giving children and young people a chance to explore a variety of new areas of science.

In our science programs for all children and youth, experiences related to many of the broad fields of science should be developed. Some of the newer sciences, such as nutrition and ecology, probably are not represented to the extent that they should be in most science programs. Sciences such as oceanography, soil science, hydrology, and meteorology are sometimes neglected in the science programs of communities where they are of special importance. The scope of our planned programs in science needs to be broadened to include experiences related to these important fields.

At the same time, we should strive for greater depth in our science experiences.

Superficiality and year-by-year repetition and duplication of science experiences are no longer excusable. Instead, fewer areas of study should be developed in each year, and these areas should be developed in greater depth. We need planning of a general nature so that there is articulation of the planned science experiences of the various years of school to avoid needless repetition and ensure depth and quality of the experiences.

With a depth approach, youngsters can have a chance to become more aware of the methods that are used to deal with problems in the sciences. In many cases their experiences may be organized around questions and problems raised in that area of science. What makes airplanes fly? A fifth-grade class organized many of their experiences in a unit of transportation around this question. They studied the various forces that act on an airplane, including the forces that lift it into the air. They built kites and model airplanes and learned the principles involved in their flight. They traced the steps that had to be taken before the first heavier-than-air aircraft could be built. Because they could devote considerable time and energy to the study of a question such as, What makes airplanes fly?, they were able to gain a better understanding of the methods that can be used to study and deal with problems.

A depth approach helps youngsters to become aware of some of the unanswered questions in science. Too often, science teaching is dogmatic in nature, and children may get the impression that all of the answers are known in science. But take the question, What makes it hard to start a wagon or car rolling, and why are they difficult to stop once they are rolling? Usually, we answer with the word "inertia." But what is inertia? No one has a completely satisfactory answer

to that question. There are many unanswered questions about this important characteristic of matter. Through their science experiences, children and young people should have a chance to become aware of some of the phenomena we do not understand to our satisfaction, as well as those which we do understand with considerable certainty.

Through their experiences in science, children and young people can learn to understand and use some of the most important generalizations concerning the world in which they live. Science has been described as man's continuing attempt to gain ever broader generalizations that can be used to explain phenomena. For example, it may be important to know the names and characteristics of specific kinds of trees. It is more important, however, to know the general characteristics of trees, the conditions in which various trees thrive, and to know how to examine and study them anywhere. This is a broader, more general understanding. Our children and young people should learn some of the broad generalizations of science and have some experience in using these generalizations in their own communities.

APPROACHES TO TEACHING SCIENCE

The teaching of science should be consistent with the nature of scientific activity. For example, it should be characterized by a willingness to consider new information and ideas, and there should be no arbitrary rejection of information merely because it may make us question preconceived ideas. Through their study of science, children should gain some insight into the way questions and problems are approached, studied, and dealt with in the field of science.

Effective teaching of science is charac-

terized by a variety of approaches. In some cases it takes the form of discussion and explanation of what may seem to be complex phenomena. Sometimes such tools of science as magnifying glasses and microscopes, prisms and spectroscopes, terrariums and aquariums are used to investigate events in our environment. One of the most fruitful approaches to the teaching of science is to deal with the questions and problems that are raised by children and youth.

Questions and Problems of Children and Youth

Children and youth raise a myriad of questions about themselves and things in their environment. Why is the sky blue? Where did I come from? What is it like at the center of the earth? How can fish live under water while we can't? Are there people living anywhere else in the world? What is electricity? Some questions are trivial; others are profound. However, questions seriously asked indicate a desire to find out. The desire to find out about ourselves and the environment in which we live is the basic motivation for experiences in science.

Children's questions usually have to be clarified. In a classic example of misunderstanding a child asked, "Where did I come from?" After receiving a long, carefully prepared discourse on human reproduction, the child reacted, "But my friend Johnny said he came from Cleveland. Where did I come from?" Often a child's question means something quite different from the meaning assumed by an adult.

The Search for Information

Children and young people have access to a variety of sources of information to which they can go in their study of questions and problems. Many of these

sources are similar to the ones that are used by scientists. Very often one of the first steps in the study of problems is to find out what others have discovered about the problems. A wide variety of excellent science books for children and young people make available to them the results of the work of many others who have studied the problem. In addition, in most communities there are farmers and grocers, scientists and technicians who can help children get the information they need. The resources in the community can be used to find out what others have learned about interesting questions and problems.

Science for children and youth should be characterized by rich opportunities to work with the materials and equipment of science. Children and young people should have a chance to handle microscopes, meters, test tubes, graduates, and other science laboratory equipment. Field experiences in their environment will help them to "see where they had only looked before." In these varieties of ways, children and young people obtain information that helps them to deal with the questions they ask and the problems they raise. Their experiences in science are enriched as a variety of

Development of Concepts and Generalizations

approaches is utilized by the teacher.

In the field of science certain broad generalizations that are believed to hold for all situations have been developed. The conservation of matter and energy is a generalization that is believed to hold for all situations. Children and youth uncover discrete information, for example, that the energy for generating the electricity we use comes from the burning of coal. This information may be valuable, but of greater value are the generaliza-

tions that can be developed from it. For example, we will never obtain more electrical energy from the burning of coal than there is latent energy in the coal. One of the most important jobs of the teacher is to help children and youth to see how their experiences are related to broad generalizations that have wide applicability.

Using Generalizations

Children and young people should learn to use broad generalizations of science to deal with questions and problems. Verbal mastery is not enough; the generalizations are for use. For example, children should be able to use the generalization of the conservation of matter and energy to evaluate the claims that are periodically made for a perpetual motion machine.

The demonstration has always been an important tool of the teacher of science. Usually a demonstration shows how scientific principles or generalizations can be used to explain various physical events in the environment. In a sense, for children and young people these generalizations become the distillates from their experiences that can be used throughout their lives as they approach new questions and problems.

SUMMARY

We are being challenged to develop science programs that will be of value for all children and youth.

Our planned science programs should provide opportunities for children and young people to explore many of the fields of modern science and technology. In planned programs of science, we should eliminate dull repetition and give more attention to study in depth and be more concerned with improvement of the quality of science experiences.

Within our science programs there should be the flexibility to investigate and study questions and problems that are of current interest. It would be highly desirable if every youngster could have a chance to associate himself with an enthusiastic teacher in an area in which the teacher has developed considerable competence.

There is a variety of approaches to teaching science for all children and youth, but the approach chosen should always be consistent with the nature of scientific activity. One fruitful approach involves the study of the serious, sometimes profound, questions and problems identified and raised by children and youth, and, in the process, developing a functional understanding of broad generalizations of science.

We know that young children are interested in science and raise a myriad of questions concerning the natural, physical environment and their own bodies. One of the exciting challenges before us as educators is to find ways to nurture this interest and to encourage and guide the growth of our children and young people as they seek answers to these questions. The proper study of mankind is the universe. The universe lies ahead for our children and youth.

Getting and Keeping Able Teachers*

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THE problem considered in this discussion is apparently not peculiar to the United States. In August, 1957, three hundred educators from fifty countries met in Germany to discuss "The Shortage of Teachers: Causes and Remedies." It was their conclusion that this was the most urgent educational problem in the world at that time, and the past year has not seen any marked change

in the general picture.

Although probably few people realize it, there is no more important social question facing a country than how to staff the public schools with fully qualified personnel. Unfortunately there are no dramatic incidents relating to public education that serve to focus the attention of the average layman on the seriousness of the current situation. There is nothing resembling a flood, a famine, or a border shooting; nothing to outrage the public; only children to be taught by teachers, many of whom are ill-prepared for the task at hand. Moreover, since the harmful results of poor teaching are not in most cases immediately observable, the complacency which abounds is not easily shaken. True enough the Russian space missile has

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Stella Kern, "WCOTP Discusses the Teacher Shortage," Social Education, Vol. 21: 353-54, December, 1957.

roused from their lethargy many citizens heretofore indifferent as to the quality of education in this country, but unfortunately the effect of this has been to place emphasis on a very limited as-

pect of the total problem.

It would be naive to suggest that there is a formula which, if known and applied, would give us an easy answer to the problem. The current situation is much more complicated than most people realize. If you live in a favored community, where school salaries are relatively high, where schools are considered important and are well-supported, where teachers are happy and the leadership is enlightened, then you may be unaware of the national problem. But there are irrefutable facts which, when understood, make the picture something less than attractive.

Now what do we mean by "able teachers"? Some of us have been working and hoping throughout the past quarter century, if not longer, to enable teaching to take its place among the recognized professions and no longer be viewed as a "poor relation." It is generally considered that a profession has some distinctive features, among which is a lengthy period of specialized preparation. It is taken for granted that members of a profession possess a high degree of intelligence and a social point of view. Moreover, in the selective process which characterizes most professions, personality is a consideration that is not overlooked.

So when we talk about attracting and retaining able or qualified teachers, we should be thinking about well-prepared individuals who possess high IQ's, who have a sense of mission, and whose personalities are effective. To assume that persons who possess less than the foregoing can satisfy the educational needs of American youth is to underestimate the complexities of the teaching task and the importance of education in our democratic society. If teaching can be entrusted to those who have just completed a four-year liberal arts college program, coupled with a brief internship and a course in psychology, then we have no serious problem in staffing our schools. In brief, if anybody who successfully emerges at a college commencement with his sheepskin in his pocket can be certified to teach, then the supply can be made to balance the demand. There are apparently some influential people in this country who would settle for this solution and be content. Lower taxes would result, although the ultimate effect on the gross national product might not be so favorable. So we have to examine what is meant by qualified and

There are at present approximately 1,240,000 teaching positions in the public schools, 780,000 of which are elementary and 460,000 secondary. The demand in September, 1958, based on the best estimates available, is 220,000, assuming that certification requirements are to be met and some of the overcrowding relieved. The colleges turned out 116,000 technically qualified individuals this past June who conceivably could fill this number of vacancies, thereby leaving a shortage of only 104,000. But experience shows that less than 75 per cent of those pre-

pared to teach actually go into teaching at graduation, and the net shortage therefore is estimated to be 135,000 teachers.2 Lest anyone misunderstand, it should be said that there will not be 135,000 classes or groups without teachers this fall. Many school systems will not relieve overcrowding or add necessary services or replace the unprepared—certainly not to any significant extent. There will also be some additions to staff made from sources other than the regular colleges. One student of this problem discovered that the return of teachers from other activities and home duties approximated the loss of experienced teachers to these duties in four states studied (Indiana, Kansas, New Jersey, and upstate New York).3 But the national picture is not a hopeful one from the standpoint of the pupils. It should be pointed out also that shortages are by no means limited to the poorer states. On July 8, 1958, a New York newspaper carried this headline: "Lack of Teachers in State Is Acute." The story which followed stated that the estimated deficit would approach 6,000 in New York State and there would be shortages in both elementary and secondary schools in 1958-59. The demand for teachers of mathematics, science, home economics, English, and music is especially high at present.

Turnover and increased enrollments are the chief factors related to demand in every state. There is little that can be done about population growth and the resulting increase in school enrollments, but turnover is not completely unavoid-

² National Education Association, Research Division, Teacher Supply and Demand Public Schools, 1958 (Washington, D. C.: NEA, 1958).

³ Jerome M. Page, A Survey and Analysis of Teacher Recruitment Policies and Practices. Doctor of Education Project Report (New York: Teachers College, Columbia University, 1958). Typewritten.

able. For this reason every effort to retain competent staff members should be encouraged.

But what can be done to attract and retain gifted teachers in the face of the imbalance between supply and demand? There have been periods before in this century when supply was not equal to the demand. Between 1900 and 1916 we were plagued with expanding school enrollments and a dearth of qualified teachers. Economic opportunities were tempting men, especially, to abandon teaching positions for larger rewards in other vocations, and where students were weighing the pros and cons of various occupations, there was a tendency to look to other opportunities than teaching whenever a free choice could be made. World War I aggravated the situation still further; large numbers of teachers resigned, and by 1918 nearly two-fifths of the nation's teachers were beginners.

From 1926 to 1940 the pendulum swung completely back to where we had an oversupply of technically qualified teachers. This included the period of the Great Depression, and by 1932 only about 40 per cent of the college students who were equipped to teach were able to obtain jobs. World War II reversed the situation again, and since 1940 the demand has consistently exceeded the supply.

So we have had fifty years or more of experience with imbalances, mostly on the side of undersupply. What have we learned, if anything? The answer isn't too clear, but there are signs that a more systematic approach to the problem is being undertaken and promises to bear fruit. For one thing, the annual collection and interpretation of statistical data bearing on supply and demand, such as the Maul studies⁴ (NEA sponsored), are providing

administrators, legislators, and others with a basis for planning. While the data are still not complete as regards the total supply available, the time is not far distant when every state will gather and interpret the statistical facts on both supply and demand for all school positions. This is a first step and a necessary one if an objective attack is to be made. While the public does not always respond to a rational appeal, it is quite impossible to convince policy makers as to the legislative measures essential for progress without the evidence.

A second step that is necessary if good teachers are to be recruited is the identification of those able young people who should be encouraged to choose teaching as a career. This is not being done adequately, despite sporadic efforts here and there that may have received considerable publicity. For one thing, teachers have been disposed to advise the ablest high school students to go into medicine, law, engineering or business, thereby revealing often their own assessment of the vocation of teaching. In some ways this is a vicious circle. Underpaid, disappointed teachers seek to prevent others from making the same mistake they feel they made in their own choices. As a result, the more gifted students are steered into one of the more respected professions and the less gifted go into teaching. Fortunately a determined effort is being made to alter this procedure. The Future Teachers of America, which now numbers more than 100,000 members in high schools, are in many instances striving to attract the abler students into the organization. Moreover, the administrations, working in close cooperation with teachers, are increasingly on the alert for evidences of future teaching promise in the student body. Opportunities for FTA members to have teaching experiences are

⁴ NEA, op. cit.

providing evidence of ability and interest which enables counselors to offer wise vocational guidance. Moreover, the teaching experience itself provides a self-screening process by which the student can shape his own choice of a career. It enables him to sense his success or lack of it and to get a measure of the satisfaction involved.

Another attempt to identify teaching talent is made through aptitude tests. While admittedly still in the experimental stage, these tests should throw some additional light on the student's abilities and interests beyond that gained through the observations of teachers. Although aptitude tests and clubs such as the FTA cannot be relied upon solely to identify and encourage the talented, they do constitute important media for recruitment.

There has been considerable discussion about direct guidance of students into teaching. Some have questioned the ethics of it, but I doubt if anybody's conscience need trouble him, since teaching has played a poor second to the other professions in the minds of guidance counselors and teachers. Presumably guidance involves a consideration of the facts, a weighing of the values, interests, and talents of pupils. If the teaching profession doesn't believe in its own worth and future, then the country's children are doomed to be taught by third-rate individuals. There is no greater social service known to man than school teaching. It is acknowledged to be the foundation on which all other professions rest. With top-flight teachers we can hope for gifted physicians, better-equipped lawyers, more talented engineers, and a better-educated citizenry generally. Hence, why should we hesitate to take our share of the gifted youth for teaching?

The direct approach to recruitment is certainly essential, and it is inconceivable

that the ablest minds will be drawn into the profession without personal encouragement from members of the teaching staff. Face-to-face discussions are more effective (it would seem) than brochures and spot radio announcements in helping students reach decisions on careers. So guidance counselors and individual teachers are key persons in recruitment.

Many teacher-preparatory institutions now send representatives to high schools once a year, either to address student assemblies or to talk to those interested about opportunities in teaching and to describe the program and features of the particular institutions from which the representative hails. Usually, individual conferences are arranged in addition to group meetings. Institutional survival is perhaps the underlying reason for this activity, but whatever the motivating purpose, it can be of considerable significance in promoting recruitment.

Another direct approach to recruitment by institutions has been to serve as host to high school seniors interested in exploring the opportunities in teaching. Visits to the campus, with ample provision for students to ask questions and observe the program in action, constitute a logical procedure in arousing interest. The task of recruiting the right persons and not merely the right number can be successfully performed only when a full exchange of views and information takes place between student and those responsible for the recruiting. Hence a thorough assessment of the facts is basic.

Unfortunately the matter of quality does not always receive proper attention. If we were to set standards comparable to those established by medicine, we would be choosing students who fall in the upper 25 per cent of their high school graduating classes in intelligence, school lastic attainment, and personality. Ac-

cording to estimates of demand, this would necessitate our attracting 45 per cent of all high school graduates who fall in the upper 25 per cent of their classes in the three qualifications mentioned. All too frequently our teacherpreparatory institutions are forced to accept students with considerably less promise than that exhibited by students in the upper quarter of their classes. The old saw about not being able to make a silk purse out of a sow's ear applies here, and unless and until education can attract its share of the talented, the teaching profession will not advance either in status or in effectiveness.

A semi-direct attack on the problem is the provision of financial aid in the form of scholarships and fellowships to prospective teachers. This appears to be an essential element in a successful recruitment program. The bulk of the teacher recruits come from the lower middle class of the population, hence they are not financially able to attend college four or five years. Until recent years little public attention has been given to this problem. Fortunately the situation is improving. Eighteen states made specific provision in 1957 for scholarship grants. Florida, Ohio, Virginia, and Maryland provide sums from \$300,000 to \$500,000 each year by way of aid. Conditions are not infrequently attached to the scholarship awards. Sometimes the student signs a note which is cancelled when he completes either a specified amount of study or a year of teaching. If he fails to enter teaching, he is obligated to refund the amount he received. The National Congress of Parents and Teachers has also made substantial grants over the past several years to those preparing for teach-

⁵ Perhaps the most significant effort to provide financial aid for prospective teachers has been the signing into law, on September 2, 1958,

There is evidence to suggest, from an analysis of the facts in several states, that go per cent of those helped through scholarships have been employed later as teachers. The success of any aid plan obviously depends upon the standards used in selecting those to whom the awards are given. If the basis is primarily need and not ability, then the results are sure to be disappointing. But the desirability of providing financial aid to gifted young men and women as a means of attracting them to enter teacher-preparatory programs cannot be questioned.

While the efforts to persuade able young people to enter the profession through direct approaches must continue, it is certain that indirect attacks on the problem along a broad front are likely to bear more fruit. For one thing, parents who exercise great influence over pupils in their choice of careers must somehow be convinced that teaching is a noble and respected profession and that their children would do well to give it serious consideration. At the White House Conference on Education one of the reports set forth clearly what needed to be done to increase the supply of good teachers. Three basic requirements were listed: (1) prestige and status must be made comparable to other professions; (2) salary structure must be high enough and flexible enough to compete with other fields bidding for manpower; and (3) the teacher's job must be so defined as to challenge and attract the interest of talented people.6

⁶ Elaine Exton, "Getting Quality Teachers." The American School Board Journal, Vol. 132:

56-58, February, 1956.

of the National Defense Education Act of 1958. Title II of this Act provides for substantial sums of money to be spent during the next four years for loans to students. It further provides that, should a student enter upon a career of public school teaching, one-half of the loan would be forgiven.

Perhaps the most obvious of the three requirements is salary. While the matter of remuneration is a complicated one, there is no doubt about the fact that teachers' salaries have rather consistently lagged behind those paid in other occupations. Even with recent improvements, the appeal to men teachers especially is scarcely sufficient to enlist many of the abler ones in classroom teaching. The typical salary of classroom teachers is \$4520 and the typical range for all teachers extends from \$3800 to \$6950. In eleven states the average salary is still under \$3500. A few communities are paying maximum salaries approaching or exceeding \$10,000 to those holding a doctor's degree or the equivalent.7

While it appears obvious that teachers will never compete successfully with business or medicine in the matter of income, the disparity must be cut down considerably if gifted persons are to be attracted to teaching. Someone reported recently on a school teacher who died leaving an estate of a quarter of a million dollars. This was attributed to her industry, her frugality, her wisdom in making investments, and an inheritance from her uncle of \$240,000. My frank opinion is that salary levels will not be raised significantly (certainly not in proportion to cost of living and the wages of other groups) until the states and the Federal Government participate more actively in the support of education. As long as Washington and certain forces now opposing federal aid continue to ignore the basic issue of supporting schools, we will have to inch our way along. If the teaching profession and lay friends of education hope to elevate the economic level of teachers, they should concentrate their

efforts on better ways to finance education.

There are some who see in "merit rating" the answer to the problem of attracting and retaining good teachers. Perhaps they are right, but it is my opinion that the evidence to date does not point in this direction. This point of view is supported by the logic found in the Winnetka, Illinois, "Report of a Lay Citizens' Salary Committee."8 This Committee was composed of business and professional leaders well informed on merit rating schemes in industry. It was their conclusion that merit rating was ill-suited to the needs of the local school system, and they rejected it in proposing a new salary schedule for Winnetka. If salary levels can be elevated to the point where teachers can maintain a truly professional standard of living, there will be little reason for provisions which exceed this in order to attract and retain gifted teachers. It is inconceivable that a person in his right mind would now or ever choose teaching as a vocation primarily because it promises to pay well financially. If economic gain is the chief motive, business, law, engineering, medicine, and several other vocations offer more promising opportunities.

There is a growing conviction on the part of many able educators and lay citizens that one reason for the low esteem in which the profession is held is the low standards which obtain. Programs of teacher-training institutions are criticized, education courses are held up to ridicule, and wholesale condemnation of existing certification requirements is being made. There is no doubt but that these attacks are influencing many young people in their choice of a career. Some of

⁷ Statistics taken from National Education Association Research Bulletin, Salary Roundup, Vol. 36, No. 1, February, 1958.

⁸ Report of the Citizens' Advisory Committee on Teacher Salaries. Winnetka, Illinois, January, 1958.

the appraisals are downright unfair, the data reported are unreliable, and the motives of the critics are questionable. These critics often overlook the fact that the teaching profession is in a state of transition and fail to see that tremendous strides have been made during the past half century. Even within the past four decades we have advanced from two years of high school training to a bachelor's degree as the minimum preparation. But it is true that we still have too many watered-down programs in some of our teacher-educating institutions, and we need to improve our standards qualitatively as well as quantitatively. Among other things we need to revitalize the program and be sure that the experiences provided students are related to the professional tasks inherent in teaching. Moreover, efforts should be made to insure that the content taught in the professional schools is rich and meaningful and that scholarship is respected and adhered to.

The critics are apparently unaware of the magnitude of the task of establishing and maintaining standards in teacher training comparable to those achieved by medicine and law. To find professors of the calibre required to insure high quality of instruction in such an ill-supported profession as ours is no simple undertaking. The salaries of college professors, except in such schools as law and medicine, are lower relatively than those of the classroom teachers in the public schools. Hence the problem of attracting gifted men and women to teach at the college level. But there is no denying that the problem of attracting able people to public school teaching is related to that of maintaining teacher-preparatory institutions of a very high order. A student's reaction to his basic training for teaching should be as enthusiastic as that of a

medical or law student. This means we must put our programs in teachers colleges and schools of education in order and maintain high standards. A long step in this direction was the creation by the NEA of the National Commission on Teacher Education and Professional Standards. This organization is committed to the task of raising certification levels and of accrediting only those teacher-preparatory institutions that meet the standards established. Self-criticism of this type and the assumption of control within the profession of matters heretofore left in the hands of those less well equipped to manage them are among the most hopeful signs in the current picture.

There are also problems related to prestige which cannot be resolved overnight. The public image of the school teacher leaves much to be desired. While admitting the great social service inherent in the profession, the public tends to look upon teaching as an old maid's occupation only slightly above the level of baby sitting. The proof of this is apparent in some of our elite communities. From among occupations and professions for which training is begun in these school systems, teaching is seldom elected by either parents or children. This was disclosed a few years ago in a study made by the Metropolitan School Study Council of the intentions of seniors with respect to their future vocations. Only about 6 per cent elected to teach and probably fewer than this actually entered the profession. The annual demand for new staff members in these highly selected, well-to-do school systems is substantially greater than 6 per cent. What is more significant, these communities often represent the cultural elite of America and they should be contributing more of their young people than the average community to a profession in which brains and cultural background mean so much. An interesting study by Dukes of the influences affecting the choice of vocations by seniors in Delaware repeatedly showed that the low status accorded teachers was a serious obstacle to recruitment. Low salaries and low esteem seemed to go hand in hand. One of the high school seniors in the top quarter of his class in a Delaware high school, when asked why he didn't choose teaching as a career, wrote:

I do not want to become a teacher for I do not see the challenge and the opportunities of other professions in the teaching field.... In every other field the individual keeps on learning and his own progress is expressed by the increase in salary, position and satisfaction he gets out of his efforts. The teacher drudges along with extensive, but for me uninteresting and ungainfully boring work, while in other professions you either succeed or fail and start something else. I prefer a more colorful and more gainful professional life than that of a teacher.9

This reaction is not uncommon and reveals the ignorance of many young people with respect to the real opportunities in teaching.

An analysis of the characterizations presented on television and in the movies would, I feel confident, support the generalization that teachers are still viewed as somewhat atypical. We may have shaken off the robes of Ichabod Crane, but figuratively we still are not attired like the business executive, the attorney, or the physician. There is a certain skepticism on the part of many laymen as to the normality of an individual who has elected to spend his life in such a humble calling. Public school teachers have not

achieved the status of "egg heads," since they lack the long years of preparation, and in the minds of the general public we have a long way to go before being fully accepted as equals of other professional workers. Citizens' committees are attempting to correct this situation, but it is a slow process. We need the help of Hollywood and the TV industry and perhaps some of the methods of the "Hidden Persuaders" to make the teaching profession attractive to talented young people. We need a Lionel Barrymore to do for teaching what he did for the medical profession by portraying physicians (in the Dr. Kildare pictures) in a light which made the job challenging and appealing. Instead we get a Milquetoast character like Mr. Peepers or an odd ball, even though lovable, like Mr. Chips. Even the clergy have done a better job than we in getting Hollywood to portray their members in a favorable light and create an image that has appeal. One can, of course, think of exceptions, but our public relations have been relatively ineffective in presenting a picture of the classroom teacher that is exciting to young men and women. Moreover the present image is a false one. By and large we are as normal as any professional group and our jobs could be just as interesting and full of opportunities.

Finally, we do need to clarify our conceptions of the teacher's task if we are to arouse the interest of our ablest young people. Teachers have been subjected to all kinds of duty assignments, some of which certainly cannot possibly be classified as professional in character. A Pennsylvania court case (the Coronway case) a few years ago revealed the fact that the courts and school board members, the State Superintendent of Schools, and undoubtedly many laymen not directly engaged in establishing

⁹ Reese Dukes, "Delaware Teacher Recruitment Study." Doctor of Education Project Report, Teachers College, Columbia University, 1954, p. 61. Typewritten.

school policies were at wide variance in their interpretation of the appropriate duties to be assigned a teacher. The immediate issue was whether an instructor in mathematics in the Lansdowne school district could be required, as part of his job, to collect tickets at football games. There were some legal technicalities that are of interest, but the point of view with respect to what is expected of a teacher is particularly pertinent here. A quote from the opinion handed down by the Superintendent of Public Instruction is indicative of the problem:

It is apparent that the General Assembly has given authority to local boards of school directors to regulate the conduct of pupils and teachers at athletic contests, and to regard them as under their direction at such times. Furthermore, we believe that the argument advanced by the Board of School Directors, that the presence of a member of the faculty in an official capacity, at a football game or other athletic contest, under the sponsorship of the local school district, to assist in regulating the conduct of the students attending, has considerable merit, from the administration point of view.

It would be a difficult, if not impossible task, for anyone to endeavor to distinguish between things professional and things non-professional, in connection with the practice of teaching or any given profession. Nevertheless, of necessity, such seeming non-professional duties, pleasant or otherwise, are frequently essential to the completion of the over-all assignment or responsibility. In some school districts, especially those where economy must be practiced, we find that teachers think it not unusual or non-professional, for them to perform certain custodial or janitorial functions.¹⁰

The Court of Common Pleas of Delaware County reversed this opinion and held that taking tickets was inconsistent

Superintendent of Public Instruction, Commonwealth of Pennsylvania, Harrisburg, Pa., #82, June 27, 1951. Mimeographed.

with the professional duties of a teacher, but it went on to say:

Modern schools are more and more offering to men students opportunities to participate in extra-curricular activities, most, if not all of which broaden the experience and knowledge of pupils participating therein. The assignment of teachers to supervise such activities is well within the power of school boards.¹¹

It appears that the distinction between professional and nonprofessional duties cannot be drawn sharply, but it is evident that able young men and women are likely to be affected by the nature of the duties that are commonly assigned teachers. Chaperoning dances, ticket-taking, and acting as nursemaids, important as they may be to the school enterprise, are not tasks for professionally trained teachers. We need to redefine the teacher's responsibilities in such a fashion that the intellectual challenge is apparent. The experiments with teacher aides may conceivably give us some clues to the desirable role of the classroom teacher. Unfortunately the findings to date have not been sufficiently convincing to most educators at least to lead to any significant changes in our assignment practices. State teachers associations should continue to study the question of the teacher's role and take some positive steps to insure its professional character.

As teaching becomes of age, greater freedom should be accorded experienced teachers to practice their art free of restrictions and close supervision. One of the characteristics of a real professional is his freedom to develop and use his own techniques, to exercise his own judgment, and to be a unique individual as well as a member of a team. The more

¹¹ Decision of Judge Erwin of the Court of Common Pleas of Delaware County, October 23, 1951.

discriminating youngsters will be influenced in their decisions by considerations of this nature. This suggests that at some period in a teacher's career we recognize the need for a grant of freedom far beyond anything we now acknowledge. A great profession can never be achieved without this. Hence we need to re-examine the job and the role of the public school teacher and work toward a true professional status for those who have the preparation, the experience, and the intellectual qualities demanded.

In conclusion, able teachers can be attracted to and retained in our public schools only through efforts along a broad front. We must use direct approaches involving guidance of pupils into teaching during high school student days. Teacher-preparatory institutions must double their efforts to identify the talented and interest them in entering the profession. Club activities must be encouraged and teaching experiences provided youngsters as a self-screening device and as a means of separating the

teaching wheat from the chaff. Then we must concentrate our efforts also on indirect approaches. Financial aid in the form of scholarships and fellowships must be more generously provided. Salaries must be raised, and this is contingent on state and federal aid plans. The quality of teacher-preparatory programs must be improved to the point where the intellectually able student respects the content of the teacher-preparatory curriculum, his instructors, and the scholarship expected of him in order to survive and graduate. Better and longer preparation must be provided for entrance into the profession. Finally we must create a more attractive image of the school teacher, so that virile young people with ambition and enthusiasm will be challenged by the thought of becoming a teacher. Along with this we need to redefine the teacher's assignment and responsibilities in a fashion that insures a truly professional role—one that permits a gifted teacher an opportunity to be creative and free.

Teacher Education and the Unity of Culture*

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Ty concern in what follows is with the role of teachers in producing and maintaining the unity of civilized existence. In the first section I suggest that the health of culture may be measured by the balance between differentiation and unification, and that modern civilization is beset by an excess of the former. In the second section I argue that the autonomous school offers the most promising means of insuring the needed integration. On the basis of this analysis, in the third section I make some specific proposals for integrative studies in teacher education.

T

Human experience is a continual tug of war between the claims of unity and of multiplicity. In the philosophic tradition this tension is evident in the contrast between thinkers who emphasize the oneness of reality and those who are impressed with its many-ness. In early Greek speculation, Parmenides regarded reality as one, indivisible, and unchanging, while Heraclitus saw the ultimate as ceaseless movement and alteration, and the Atomists sought to combine the

Among Dean Phenix' recent writings are Philosophy of Education (Henry Holt and Company, 1958) and Religious Foundations of Education, soon to be published by the Bureau of Publications, Teachers College, Columbia.

claims of both by a metaphysics of indivisible units-in-motion. In modern times, the rationalistic Spinoza enjoyed a vision of intellectual unity, while the empirical-minded Hume dissolved "being" into atoms of sensation, and Kant offered a reconciliation of the two through a critical philosophy of knowledge. Among the philosophers, perhaps it was Hegel who most systematically explored the meaning of this interplay of the one and the many. He saw all human history as a dialectical process wherein provisional unities beget diversities which are then reunited with their sources on a higher level of synthesis.

Similar tensions and contrasts mark the development of all civilized thought. The several systems of Indian philosophy, for example, may profitably be viewed from the standpoint of this monism-pluralism polarity.

In contemporary culture two of the most striking illustrations of the interweaving of unity and plurality are the scientific enterprise and democratic social organization. Scientific investigators are constantly engaged in exploring new domains of experience, discovering new facts, and analyzing the old simplicities into new complexities. At the same time they seek to unite the isolated data of inquiry by means of theoretical struc-

tures into comprehensive explanatory systems. Thus the pathway of science is twofold and dialectical: both to display more and more the manifoldness of nature and to show by the formulation of natural laws how these many exemplify certain great simplicities.

Similarly, in the realm of social existence, democracy represents the attempt to effect the optimum adjustment of the competing claims of freedom and order. Freedom represents the dimension of plurality and order the dimension of unity. The goal of democracy is symbolized in the motto *E pluribus unum*, the welding of plural interests into a coherent social commonwealth. The many are not dissolved into an undifferentiated unity, but genuine individuality is preserved within a framework of constructive coordination.

I suggest that a healthy civilization is balanced with respect to differences and unity and that the excess of either plurality or oneness is a mark of an ailing culture. When differentiation dominates, the result is chaos, anarchy, destructive conflict, waste, dispersion, and triviality. When unity reigns supreme, the consequence is stagnation, rigidity, inflexibility, and sterility. The well-balanced civilization possesses dynamic and contrast-ful integrity, wherein differences both temporal and extensive are so related as to become mutually enhancing.

As might be expected, educational thought and practice illustrate the aforementioned polarities and tensions in culture and society generally. When the tradition of the schools becomes fixed in a rigid, unchanging pattern, education suffers from overemphasis on unity. The curriculum is standardized, and learners are expected to conform to it. Against such traditionalism the "progressives" rebel, in favor of individuality, freedom,

variety, and creative process. The Progressive Education movement of the present century was just such a reaction away from an excess of unity toward greater differentiation. More recently the claims of unity have been pressed against the alleged excesses of the progressives. The introduction of "core" curricula, the restriction of free electives, the renewed emphasis on "standards" and "discipline," and the organization of studies around "the essentials" and "the Great Books" are evidence of the concern for greater unity and continuity in the materials of instruction.

What, now, is the present condition of our civilization-and of its educational components-in respect to the balance of unity and differentiation? I think the evidence is abundant that we suffer from an excess of multiplicity. We are rich in variety of experiences and in the accumulation of things, but poor in the means of coordinating them meaningfully and productively. Knowledge multiplies so rapidly that not even the specialists can remain fully informed in their own subjects, let alone in other fields of inquiry. The current phrase, "the explosion of knowledge," appropriately expresses the contemporary intellectual predicament. Personal life is similarly disorganized. Modern man drifts on a tide of unmeaning. Beset by "anomie"—without convincing standards—he too often struggles in vain for a basis for order in his existence. Social and political life, in which corporate existence is molded by the ever-shifting pressures of disparate and conflicting interests, reflect the same lack of integrity and direction.

If this diagnosis is correct, the most urgent need in our culture is for a principle of integrity whereby the exuberant manifoldness of this dynamic civilization may attain some common measure. Even

if they were possible, cessation of inquiry and withdrawal from the pursuit of individual interest would be no solution. Neither does a return to the ways and beliefs of the past suffice. The integrity of contemporary civilization must be achieved through a fresh ordering of the very elements whose variety and extent constitute its central problem.

H

The desired integration of culture cannot be produced by an abstract principle -by a disembodied ideal. There must be social institutions through which the organizing principles can be made concretely effective. Historically the two main institutional structures exercising the integrative function have been the state and organized religion. In modern industrial society there are at least three new institutional complexes which offer themselves as alternatives to government or organized religion as prime agencies of cultural integration. One is business, a second is the mass media. Business and industry, by effectively controlling the material conditions of life, may with considerable justice claim to mold the basic pattern of modern existence. In an important sense ours is a "business society."

Regarding the mass media: with the perfecting of modern tools of communication, a powerful new means of exerting a pervasive and penetrating influence on attitudes and values, and thus on the general climate of culture, has come into being

The third important new unifying agency is the educational system. Only in recent times has the school become competent to take this role. There are two reasons for this. One is the rise of universal education. In cultures where educational opportunity was restricted to the few, the school could not serve

as an integrating agency, except indirectly through the primary unifying institutions such as government or church. As we now move rapidly into an era of education for all, the school becomes potentially a powerful primary agency for determining the form of civilized life.

The second reason for the new role of the schools is that modern knowledge, which the schools aim to communicate, is, at least to a degree, scientific in character. The scientific ideal does away with private, esoteric, individual insights in exchange for understanding which is universally valid, publicly verifiable, and experimentally demonstrable. Hence, the new knowledge, the chief stock-in-trade of the schools, has become in principle a ground for reaching agreement, thus establishing communities of mutually intelligible discourse. Education for all, organized around methods of inquiry which promote common understanding, has become a crucially important agency in cultural integration.

Government, organized religion, business, the mass media, and organized education, then, today contend for primacy in the coordination of contemporary life. When any of the first four are given the lead, the schools must assume a dependent and derivative position. The Communist states clearly illustrate the total subordination of education to the interests of the state. Many exponents of organized religion argue that schools should be under ecclesiastical authority, and growing parochial systems in a number of religious groups are concrete evidence of that conviction. Recent studies by Harold Clark and others have shown the astonishing degree to which industry has already undertaken educational functions, particularly at the post-high school level and in technical fields. The influence of business interests on school boards

and boards of trustees at all levels is also well known. Finally, it may be seriously questioned whether controllers of the mass media rather than schoolmasters do not now call the tune for education.

My thesis is that of all the potential agencies for providing coordinated direction to modern civilized life only the educational institutions are in principle fitted for the task, because those social agencies alone (I believe) are fully responsible to the claims of critical intelligence. I do not advocate that philosophers be kings. I do affirm that the communities of intelligent inquiry-of scholars and scientists, teachers and learners-provide the one promising source of constructive cultural integration. If schools are to function in this way, they must become increasingly autonomous-free and responsible-and those who see the institutions of education called to this task must resist every effort to subordinate the schools to other interests.

Though analogies often seriously mislead, they are sometimes rhetorically useful. To illuminate my thesis I shall take a chance with the familiar and in some respects inappropriate analogy between society and the biological organism. An organism has two kinds of cells: somatic or body cells and germ cells. The somatic cells are differentiated for various specialized functions in the several kinds of body tissue. The germ cells are also specialized, but in a different way, namely, to represent the whole organism in reproduction. Only the germ plasm contains the plan of the whole organism, so that it alone can bring into being a new generation.

The analogy is that the social structures responsible for holding together and re-creating civilization are like the germ plasm, and my thesis is that schools and teachers are designed to be germ

plasm for the social organism and that other institutions should be like the specialized body tissue but *not* primarily responsible for the propagation and improvement of the cultural treasure.

To elaborate the analogy one step further, we might consider the fact that simple organisms like the amoeba reproduce by fission, while more complex ones reproduce sexually. So perhaps we may think of repetition and duplication as an undeveloped mode of cultural continuation, manifest in social systems where education is accomplished separately by each social unit, such as caste, craft, or family. The advanced mode of societal reproduction would call for a class of social institutions specialized for cultural conservation and regeneration, also arranged so as to provide for creative reconstitution rather than mere duplication. Here the interactivity characteristic of vital educative communities corresponds with biological generation through sexuality.

If the schools and teachers are to be, so to speak, the germ plasm of society, teachers must be specialized for wholeness. If they are to take responsibility for the new generation, they must be guided by some idea of the main features of the civilization they are helping to bring into being. From this standpoint, teachers should be general specialists (or specialized generalists). Their specialism is in their professional competence for the process of transmitting and re-creating ing culture. Their generalism is in the integral perspective from which they do their work—the informed sense of the whole in the light of which they direct

their teaching efforts.

III

I want finally to suggest specifically what the view sketched above might

mean for teacher education. As I see it, the preparation of the teacher should comprise three kinds of studies:

A. Studies in the major skills and fields of knowledge. Every teacher needs to have mastered the basic common skills of mind and hand, to have acquired some understanding of the main areas of modern knowledge, and to have explored some field or fields in depth.

B. Professional studies. The teacher needs to learn the special arts of teaching and to understand their rationale. That is, he requires skill in instruction and theoretical understanding of this activity. The essential areas of professional study, in my view, are as follows:

I. The psychological foundations of education. For example, human development, learning theory, personality, and motivation.

2. The social sciences of education. For example, sociology of the school, education and politics, economic factors in education.

3. The history of education.

4. Special curricular studies. Methods and resources for teaching in the several subject fields and at the various maturity levels.

5. Various special professional disciplines, as required by the individual's vocational plans. For example, guidance, school administration. Practical wisdom in these fields, together with theoretical grounding.

6. Supervised teaching or other appropriate field experience.

C. Integrative studies. Studies of type A above contribute to the depth, richness, and variety of the teacher's knowledge, and studies of type B help in the development of professional competence. If the teacher's education includes only

these two kinds of preparation, he will merely have gained efficiency in mediating the uncoordinated multiplicity which now imperils our civilization. If teachers are to assume responsibility for the creative reproduction of civilization, they must have a third type of preparation, namely, integrative studies. Such studies should be valuable not only for teachers but for all students; every person, to be well educated, needs to develop a more or less comprehensive and coherent scheme of life and thought. But if the thesis herein presented is correct, professional educators have a unique responsibility for leadership in the integration of culture.

There is a sense in which all studies, imaginatively taught, can be integrative in character. Even the most specialized subjects can be presented with a sense of the whole, that is, from a perspective which places them in proper relation to other realms of experience. "General education" in any field might well be regarded as teaching done with the deliberate aim of contributing to an integral civilization. So also "liberal education" can be interpreted as the pursuit of learning with relentless concern for the interconnections and mutualities of human experience.

The integrative studies I am proposing here are more consistently and pointedly designed for the development of a comprehensive outlook than these "general" or "liberal" studies. They would most usefully be undertaken by mature students who had already acquired a good liberal education. Integrative studies may be useless or positively harmful when pursued by persons without a considerable fund of well-assimilated knowledge

and experience.

The fundamental integrative studies important for all professional educators

and relevant to all special fields of learning I consider to be the following six:

- 1. Human nature. Many disciplines deal with the nature of man. The contributions of the many special fields need to be brought together into a synoptic study of human beings-of the persons to be educated. Suggested topics for an integrated course in human nature are: The sources of our knowledge of human nature (biology, sociology and anthropology, psychology, philosophy, theology, literature, the arts). The human organism. Social foundations of human nature. Varieties of human nature (including individual differences). Man as thinker. Man the maker. Man at play. Imagination and memory. The symbolic process. The emotional life. Motivation, value, meaning. Human freedom. Human destiny. The good man, ideals of human personality.
- 2. Teaching students to think. teaching is concerned with instruction in right thinking, and the particular disciplines of thought can never be displaced by a generalized course in thinking methods. Nevertheless, it is important for the professional educator through an integrated study to examine quite self-consciously the ingredients, canons, and varieties of critical intelligence which operate in the many special disciplines. Such a study would be somewhat akin to many of the courses commonly given in critical thinking, logic, and scientific methods, but would be oriented toward and illustrated by typical teaching situations. Examples of topics for this kind of course are: Thinking and correct thinking. Using words correctly. Constructing and understanding sentences. The principles of argument. The science and art of observation. Experimentation. Theory construction. Explanation.

Mathematical reasoning. Statistical thinking. Historical understanding. Thinking in the arts, in morals, in religion.

- 3. Education and the creative process. In every subject field the teacher is also concerned with helping students to become creative. In some respects creativity in the various disciplines is specific and nontransferable. One can no more teach students a general method of creating than a sovereign way of thinking. Nonetheless, it is desirable for those who are designated as custodians of the civilized heritage to gain some comprehensive view of the available approaches to the development of creativity. Sample topics might include: Problem solving as creative process. Science and imagination. Stimulating inventiveness. Instruction through research. Social and cultural conditions for creativity. Creativity in human relations. Creation in the arts. Re-creation. Creative work. Teaching as creation.
- 4. The values we teach. The goal of all teaching is "the good life." Some conception of what that good life is—some value conviction—underlies every decision the educator makes. Every educator needs to look carefully and critically at the more or less coherent array of beliefs which are implicit in his teaching activity. He should make explicit the values which he seeks to advance. Surely we can expect no consensus on any one set of values. The goals of Western civilization, or the objectives implicit in the American way of life, are too ill-defined and hotly disputed to offer hope for unanimity. But this provides no excuse for failing to examine the issues on which some commitment must be made and on which the major options can be critically explored. A synoptic study of the substantive values in American civilization and how they can be taught might include

such topics as: Intellectual values. Standards for sex and family life. Manners. Esthetic values in our culture. The ethics of mass communication. Social class. Race. Religion. The occupational structure. The use of natural resources. Political structure and process. International responsibility. Meaning of democracy.

5. The realms of knowledge. At a well-advanced stage of his formal education every teacher should have an opportunity within the compass of a single course of study to look at the whole range of academic disciplines, to see if and how they compare and contrast, to get a clearer notion of the methods, fundamental concepts, and root metaphors of each, and to acquire some keys to more fruitful and economic lay exploration of the various scholarly fields. Such a course might, for example, be based on the essays in such works as Frontiers of Knowledge in the Study of Man, edited by Lynn White, Jr. (New York: Harper, 1956), or The New Outline of Modern Knowledge, edited by Alan Pryce-Jones (New York: Simon and Schuster, 1956), on a series of authoritative books for the layman (many excellent inexpensive editions are now available for students in such courses), or on a series of lectures by competent scholars in the major fields who are interested in interpreting their special disciplines to educated laymen, particularly to teachers.

6. General curriculum. Finally, the teacher should be led to consider the ultimate integrative problem: How shall the human nature studied in its whole-

ness (1, above) be helped to develop in the light of the unitary goals of thinking, creating, valuing, and knowing (2, 3, 4, and 5, above)? This is the problem of general curriculum. How shall learning be directed throughout the total life span of a person, considering what he totally is, can be, and ought to be and what, in sum, is available and needful to learn? A consummatory course in general curriculum (this is the quintessence of "educational philosophy") might include such topics as these: The determinants of curriculum. The plurality of curricula. Curriculum making as an art. Ways of organizing experience. Education for work and for leisure. Learning to be a citizen. Formal and informal education. Purpose, goals, and methods of the several major subject fields, considered in relation to one another and to the total pattern of personal growth.

IV

In Summary. I have expressed the belief that mankind is now confronted with the threat of intellectual, personal, and social disintegration because the analytical, elaborative, and diversifying powers in modern civilization are not balanced by equally strong coordinating forces. Next I have argued that schools and teachers are uniquely equipped and ideally responsible for supplying the needed cultural integration. Finally I have suggested some specific ways in which the curriculum of teacher education might provide for the better discharge of that exciting responsibility.

Teachers College, Columbia University Register of Doctoral Dissertations

ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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-REVIEWS

The Academic Marketplace, by Theodore Caplow and Reece J. McGee. New York, Basic Books, 1958. 262 pp. \$4.95.

This is sure to be among the most frequently misquoted books published last year or any year. For the authors and the publisher have taken considerable pains to see to it that if the reader's eye catches nothing else, it will be trapped and held by a series of bold-face-type quotations right out of the mouths of the professors themselves. And while most of these quotations make the professors look ridiculous, many of them simply cannot be accurate in the form in which they are presented and out of the contexts from which they have been selected. Since the authors themselves have done such an illustrious job of misquoting they are not entitled to much indignation if others follow suit.

And follow suit they will, of course. The fact is that many Americans feel bitterly inferior to intellectuals, and especially resent those who are safely ensconced in Academia. Above all, men with brains and talent who are permitting agencies and organizations to put their talents to uses of which they are not very proud are always on the lookout for ways to bring the lofty academic down from his moral perch.

For these reasons, the most self-demeaning of these statements by professors are sure to become cocktail-party tidbits for the anti-intellectuals. In these ways, Caplow and McGee have done for their fellows in Academia what Vance Packard and W. H. Whyte have done for their fellows on Madison Avenue and in Corporation Alley.

All this is regretful. For underneath all the cuteness, the striving for effects, and the inappropriate quotations, there is a

rather good study of the university as a social system, with special reference to the problems of hiring, firing, motivating, promoting, and organizing the work of the productive personnel of Academia, namely, the professors. Yet not many readers are likely to be tempted into a study of the book's serious contents, and reflection upon them, when they can apparently get at least a conversational command over the book simply by a rapid reading of the quotations. For this the authors have no one to blame but themselves.

Chapters 1 and 2 of the volume deal with the background of the study and the methods pursued in securing and analyzing the data. Briefly, the unit of analysis consists of a "vacancy and replacement," involving a full-time faculty position. The authors asked, "Under what circumstances did vacancies occur and in what ways were these vacancies then filled?" They asked these questions about 237 vacancies which occurred in the liberal arts departments of nine major universities during the academic years 1954-55 and 1955-56. These nine universities were drawn from the group of thirty-nine which comprise the membership of the American Association of Universities.

Interviews were conducted, as frequently as possible, with the chairmen of the departments in which the vacancies and replacements took place, and with at least one peer, i.e., colleague of same rank, of the man who had been displaced. No interviews were conducted with the vacators or the replacements themselves.

Unquestionably, the study would have been much richer if the displaced and hired professors had themselves been interviewed. Unquestionably, however, this would have meant a much larger book, which would address itself to many questions other than

those to which the authors do pay attention.

Yet it must be said that even for the purposes affirmed by the authors, interviews with the professors centrally involved would frequently have told us a good deal that we now feel is missing in our understanding of the process of vacancy and replacement. This is not to say that the men who left and the men who came would have presented a truer version of the process of departure and arrival. But interviews with them would probably have turned up a host of variables relevant to the academic profession which were not suggested by the interviews with chairmen and peers. I am not suggesting that the authors should have written a different book, but rather that the book they set out to write could, I believe, have been made substantially much richer and fuller in its truth by interviewing the candidates themselves.

A view of the admirable range of questions which guided the inquiry can be had quickly from the titles of the chapters. Chapter 3 investigates how the vacancies occurred. This is followed by chapters on how academic performance is evaluated; what the internal departmental strategy is in recruitment; what procedures are followed in recruitment; what factors determine how the candidate is chosen and why he ultimately accepts or rejects an offer; and how the departmental interests and strategies are related to the morality of academic government, including, prominently, the structured stresses which are present within and between departments, between members and chairmen, between deans and departments, and deans and higher administrative officials. Attention is also paid to some of the techniques by which some of these stresses are sometimes resolved.

Some remarks are then made, in passing, about the current marketplace for jobs, and the final chapter goes on to summarize some major features of the academic situation, and ends by positing eleven recommendations aimed at improving the total situation.

That Caplow and McGee are competent

sociologists, there is no question. Nor is there any question but that they are knowledgeable about what goes on in universities. And their sociological competence is applied fairly satisfactorily to the data, and presented in rather good, crisp prose. By and large, after reading the book, the average nonacademic will understand rather more about how universities operate than he did before. And he will understand universities in a more systematic fashion. The same probably can be said about those academics themselves who do not know how to grasp the dimensions and regularities of the social system of which they are participating members.

But now, some of the ways in which the book falls short of its mark must be pointed out.

First, we get virtually no understanding here of the meaning of work for the academics involved. Yet these aspirations and involvements, these "definitions of the situation," undoubtedly are major factors which condition the relationship between any academic and his institution, and surely play a large role in determining how reluctant or willing he may be to move; to what kind of institution he may desire to move; what he will sacrifice; and how interested he will be in security as against new experience.

These self-images must also play a very significant part in shaping the public image with which the academician confronts his peers and superiors. And they are undoubtedly vital in determining how bound to the academic way of life is the average professor; how limited therefore such a man is in his alternatives; and how exposed and relatively powerless he consequently proves to be when his administrative "superiors" choose to move in on him.

Only on pages 228 and 229 do the authors display a keen sense for these dimensions of the academic situation. Their sensitive discussion here derives hardly at all from data presented in the first two hundred pages of the book.

The book is off balance in one other major regard. We are given a vivid impres-

sion of how seamy the human relations can become in the academic marketplace and, in these matters, how very similar universities are to any other formal organization, even those with much less "lofty" purposes and intentions. If we are to accept this impression, we see that the rat race in Ivy Hall is as swift, immoral, degrading and senseless as in Organization, Inc.

But there is another side to academic life and to the academic job situation which the authors do not give us and which is highly relevant to their own questions and purposes. A look at this side of academic life shows us a social system oriented to rather admirable purposes, at least in its stated ideologies; structured loosely enough in many cases to permit more self-determination and autonomy than is found in almost any other occupation; permissive and supportive, in the better cases, of considerable individuality and creativity; and turning out products, both in the form of research and of trained students, which in at least a fair percentage of the cases make a real difference in the life of our culture.

Of these aspects of academic life, and their bearing on the marketplace, there is hardly a flicker of awareness or a whisper of mention in the volume.

MELVIN M. TUMIN Princeton University

Reading: Chaos and Cure, by Sibyl Terman and Charles Child Walcott. New York, McGraw-Hill, 1958. x + 285 pp. \$4.75.

The authors, a remedial-reading specialist and a professor of English, paint "a very grim picture" of the present status of reading in our schools. As they see it, "our public schools have retarded the reading of the average child at least two years—and probably more—behind what it was forty years ago. . . ." (p. viii) Why? Because they have persisted in using "a system that has never been successful"—the look-and-say method

with incidental phonics. The cure? A proper method—systematic phonics!

Like Flesch's Why Johnny Can't Read, this is an angry book with strong protests against the "reading experts," "educationists" and their misguided theories, and a simple, clear-cut solution—phonics.

It is written in a crusading spirit, with a tendency to distort existing practices (i.e., the schools teach phonics, but badly and not until the third grade), although it does attempt to offer proof for its position. The authors are sensitive to the many subtleties in the reading process and make some challenging observations about the shortcomings of current reading instruction.

The book is organized in twelve chapters. The first ten are devoted to the "chaos" in reading and how it was brought about. The last two chapters and two additional sections present the authors' "cure."

There is a great deal of material and all of it cannot possibly be reviewed here. Some of the basic themes and purposes appear to be of major importance to the reviewer.

First, "the chaos." Is reading achievement now two years behind what it was forty years ago? The authors say yes. What is their evidence? Educationists and reading experts who report that about one-third of the children in each grade are reading below average for their grade are quoted. They also cite cases with whom they have worked—bright children with reading problems—and point with assurance to the increase in the number of remedial reading teachers. A most provocative datum, however, which set this reviewer wondering runs as follows: On the current revision of the Stanford-Binet by Dr. Maude Merrill James, the reading subtest originally placed at the ten-year-old level in the 1916 and 1937 editions, "now has to be put at the twelve-year level. At the age of twelve, 60 per cent of California children can today perform on a test what 60 per cent of ten-year-olds could perform on the same test in 1916 and at the time of the first revision in 1937." (p. 15) On all other parts

of the test, it is claimed, today's ten-yearolds performed at the same level as on the two earlier editions.

If this is found to be valid for California and for other states as well (the authors presented no bibliographic reference), then we have a major problem on our hands. If so, why? The authors claim that the why lies in the present method of teaching beginning reading. But it seems to this reviewer that if the current method is to blame, then it should have affected the 1937 edition of the Stanford-Binet as well, because when the 1937 normative population was in the primary grades (late twenties and early thirties), the present method was already in use. Perhaps we have to look elsewhere for an explanation, rather than coming to hasty conclusions. Let research decide whether children are reading as well as they did forty years ago, and accept the authors' challenge that many children are not reading as well as they can or should.

Second, "the cure." Can systematic phonics solve the problem? Again, the authors say yes. They reanalyze the publications on phonics vs. look-and-say, and conclude that although past research studies are too limited and lack scientific rigor, "in every one of [these research studies] the figures show that a greater amount of phonics resulted in higher scores on achievement tests, although often by small amounts." (p. 121) For more convincing evidence they refer the reader to their chapter "Light through the Clouds," where they present the "Champaign, Hay-Wingo, Carden and other . . . large-scale, controlled, accurately reported studies of thousands of children over periods of years. [These] present overwhelming and irrefutable evidence that a reading program that starts with initial systematic instruction in phonics produces enormously better results than the currently approved method of look-and-say plus incidental phonics." (p. 123) However, this reviewer could find only one controlled study with a bibliographic reference—the Champaign, Illinois, Story. The other "studies" are descriptions of happy children, contented teachers, and proud parents in schools using an initial systematic phonics program where there are "never any nonreaders, no retarded readers, and children with IQs as low as 75 are regularly taught to read." (p. 141)

One may ask what kind of schools get such unusual results? According to the authors, they are not exceptional. In the Franklin Square School, for example, where the Carden method is used, "in 1957, in a third grade of 645 pupils, 80 per cent scored above the national norm for children of that grade, on the standard reading test. . . . Of this same group of third graders, 79.5 per cent made IQ scores of 100 or above." (p. 16) If these are not above-average children, then perhaps the norms of intelligence tests need revising.

The above is cited not to deny the value of phonics; in fact, evidence from research and practice points to the importance of phonics. But that systematic phonics as the initial stage in reading instruction is overwhelmingly and irrefutably better than the present method has yet to be demonstrated. It is unfortunate that the strikingly good results claimed by the schools using systematic phonics have not been subjected to rigorous study. They should be. It is my hunch that what seems to distinguish schools that use systematic phonics as a beginning reading procedure (and incidentally schools that use other "minority procedures" such as film strips and kinesthetic procedures) is the systematic, closed method that they afford to both teacher and pupil. In such schools reading is approached in a more limited way. If they produce better results, then we should look for more than the simple dichotomy: phonics vs. no phonics.

The authors make a hard sell for phonics, but say more besides, and here is where their real contribution lies. They question, and to this reviewer quite convincingly, many assumptions of present reading theory: (1) Reading readiness. (2) The meaning emphasis in beginning reading. (3) The complex causality theory of reading dis-

ability. (4) The controlled vocabularies of modern readers and textbooks.

Third, "their phonics system." It seems difficult to follow and I question whether it can produce the results they claim, for the 5- and 6-year old. The system does not provide for application and transfer as sounds are learned. Instead, all sounds and phonograms-both common and rare-are introduced, with rules, before words are presented. One gets the feeling that the system has been used successfully with the intelligent reading disability case. The excellent suggestions for remedial instruction -how to build rapport, the kinds of books to use with the child-leave no doubt that the authors have been successful with their system, but that their success stemmed from more than the phonics system alone.

To conclude. This is a sophisticated, though polemic, book that should be read by all who are seriously concerned with the science and art of teaching reading. If some of the authors' "facts" and "truths" are rephrased into empirically testable research problems, they will indeed have made an important contribution to the field.

JEANNE S. CHALL
College of the City of New York

Dynamics of Behavior, by Robert S. Woodworth. New York, Henry Holt, 1958. x + 403 pp. \$5.00.

This broad-gauged theory of behavior would be noteworthy if it were only a demonstration of how the intellect of Professor Woodworth, the doyen of American experimental psychologists, has been ripened by over sixty years of professional experience and how his vigor has been facilitated by his dedication to his science. Happily, it is much more than an illustration of how certain senior citizens can themselves tackle the problem of aging.

Dynamics of Behavior is clearly not a revision of Woodworth's Dynamic Psychology of 1918. A product of continuous and searching thought by a man who has

consistently held a position of leadership in his field, the book evolved from a course offered at Columbia University, changing almost annually, for forty years. Its final form was determined in part by the author's attempt to supplement his Experimental Psychology, revised in 1954 with Harold Schlosberg, and to cover the relevant literature published since then.

The aim of the book is to provide an integrated theory of motivation, perception, learning, and thinking. It is not primarily focused on unconscious drives, conflicts, and adjustment problems, but it is explicitly animated by the conviction that general psychology, systematically conceived, will have immense ultimate value to those concerned with applications in mental health. One of Woodworth's side achievements is that he demonstrates quite effectively, largely through his obiter dicta, that this conviction is a sound one.

One of the major hallmarks of the approach here is its comprehensive openmindedness. This is by no means the openness of an empty mind. Rarely has a wider or more thoughtful command of an extensive literature been demonstrated, and few writers have been able to levy so richly on so long or so varied an experience in the laboratory. Rather, it is the openness that results from a refusal to fall a prey to factionalism. One of the unfortunate susceptibilities of psychology in this day of its most zestful growth has been a tendency to split into rival camps. Divergent schools of behaviorism, like their very different counterparts in psychoanalysis, are given to a degree of scholasticism about their own principles, and the gestaltists have inviolate Academies of their own. Woodworth, familiar with them all, draws on them for what is useful but serenely avoids purely partisan squabbles. The result may lack some of the excitement of open intellectual warfare and some of the narrow but penetrating accomplishment of work by a Hull or a Kohler. But it has a range and a comprehensiveness of problem-sensitivity that are lacking in most relatively formal theories. From the point of view of a student, whether he conceives of himself as a psychologist or simply as one interested in the science of human behavior, *Dynamics of Behavior* is likely to prove heuristically more valuable than other treatments and to provide a basis for assimilating other theoretical works with profit without being lured into the blinders of factionalism.

Pointing out that the student of behavior need not be a behaviorist, Woodworth retains rigorous standards of objectivity and a sense of evidence while eschewing the limitations of behaviorism. He is keenly concerned with the implications of introspective data and interested in the nature of mental processes. Alert to the pitfalls identified by Skinner in the employment of intervening variables in psychological theory, he argues cogently that such inferred processes are more than merely convenient. As knowledgeable as any experimental psychologist about the power of operationism in behavior research, he is also sensitive to the conceptual meagerness that issues from operational definitions too uncritically accepted, and he searches continually for methods of conceptual enrichment through variations in research techniques and the correlational analysis of different operations providing the different experimental definitions of common concepts.

As a consequence, one is exposed to a theory in which behavior is conceived as organismic activity interacting with the environment and accounted for in terms of three classes of variables. One class has to do with the dimensions of the stimulus situation (S) to which the organism is exposed. For example, speed of reaction is dependent on whether the stimulus is auditory or visual in character. A second class of variables is concerned with factors in the organism (O). Reaction time is also a function of such attributes of the respondent as his age. Finally, there are antecedent variables (A) or the conditions of the organism's personal history that have left their effects on him as a responding entity. As an illustration, reaction time may be considered in relation to the subject's amount of practice in reacting rapidly to the stimulus. A-variables are, therefore, those factors in the reactional biographies of organisms that are responsible for many O-variables. An experimenter or anyone wishing to influence the activities of another organism often cannot get at the O-variables directly. He can, however, control them to a degree by appropriate antecedent operations or identify them effectively by examining the histories of his subjects.

Out of this framework emerges a theory focused primarily on the hows and whys of human activities and accomplishments. It is directed mainly toward the problems of the nature of "secondary" or experientially derived motives; the ways in which raw stimulus situations are "decoded" into information that is useful and meaningful in the light of the organism's motives and more general environmental context; and the processes of utilizing past learning in the solving of new problems. Anyone who reads this book thoughtfully will not only learn a good deal of up-to-date psychology; he will also learn a good deal about how one can think productively about behavioral events and the puzzles that man constantly poses for himself by his own conduct.

Edward Joseph Shoben, Jr. Teachers College, Columbia

TV and Our School Crisis, by Charles A. Siepmann. New York, Dodd, Mead & Company, 1958. 198 pp. \$3.50.

In this readable and sometimes annoying little book, Charles A. Siepmann, Chairman of the Department of Communication in Education at New York University, offers a simple premise: "We have too few teachers for too many students and . . . bad as things are today, they are going to be worse still in the years immediately ahead unless we take bold, immediate steps

to mitigate the evils." He believes that one of the major steps to be taken is expanded use of television "along the whole educational front."

Much of the book is devoted to summarizing various studies, experiments and experiences with educational television in colleges, universities and school systems in the United States, England, France, and Canada. For the scholar the summaries present familiar information, the kind of thing which is available in various brochures, newsletters, reports of research studies and the like. It is convenient to have them brought together in a single source, although one must point out that Mr. Siepmann's survey is not a complete one, nor does he pretend that it is. Perhaps the great omission is an account of the armed forces' work with television. It is clear, too, that Siepmann is unashamedly placing greater emphasis on those reports which are favorable to educational television than on studies and opinions which are unfavorable.

I have mixed feelings about this book. On the one hand, I welcome the challenge to use television in whatever ways we can to support and improve American education. There can be little doubt that television is having a considerable impact on education, perhaps more than any medium of communication since the inexpensive textbook. On the other hand, it should be said again that the reader is likely to leave this book with the impression that all research evidence is overwhelmingly favorable to educational television, and that critics of ETV are so naïve or ill-informed as to be dismissed summarily. There is a chapter devoted to "answering the critics," but it is treated rather like the kind of political handbook which is distributed at election time summarizing the opponent's argument and then presenting the handy argument which can be used for destroying it. The arguments of critics are not treated in the same fashion as are the positive findings.

The last chapter in the book is a curious one. After nine chapters which deal with

various aspects of television as related to formal education, the author presents an omnium-gatherum essay on the ills of American education. At this late point a vital thesis is revealed (perhaps the primary one of the book), namely, that American education has been rotting at the core for some time now, quite irrespective of demographic problems. We have lost sight of goals: "The whole of education has to be overhauled. . . ." The emergence of television as a practical educational medium, then, is not merely a solution to personnel problems, it is the occasion for remaking our basic purposes and procedures.

In shaping the "new look" for education Mr. Siepmann would do many things to improve the status of the teaching profession and to focus attention on achieving excellence in the student. He leans toward an aristocratic view of who should be taught and what should be taught. He sees a time when professional teacher preparation will not be required. ("The administrative nonsense that sets up barriers to the employment of . . . a magna cum laude Bryn Mawr graduate, because she has not been put through teacher-training courses, will be a thing of the past.") And he finds considerable merit in the now familiar cry for "massed classes" taught by "master lecturers" assisted by aides, at all levels of educa-

Whether you agree with Mr. Siepmann all of the time or half of the time in his evaluation of our educational ills and their cures, you are likely to leave the book with the uneasy feeling that the context in which educational television is finally placed is that of a power struggle for control of American education—control the medium at this critical early stage and control the whole show tomorrow. Perhaps this overstates the case, but there is no doubt that the book is a militant one which calls for the mustering of courage and devotion to achieve, through TV and like resources, "a golden age of education."

Louis Forsdale Teachers College, Columbia

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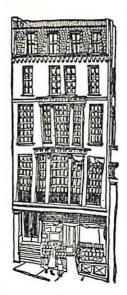
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American Education and the International Scene*

DONALD G. TEWKSBURY

LATE PROFESSOR OF EDUCATION, TEACHERS COLLEGE, COLUMBIA UNIVERSITY

Por the past twelve years—since the end of World War II—the United States has been living in a world far different from the one for which we were educated. We were brought up to be "national men," but the world now needs "international men" in all countries. This situation makes it necessary for each of us to undergo a painful process of reeducation before he can function at all intelligently. We are indeed lost unless we are able to enter into this new world with new skills and new perspectives.

The position of the United States has dramatically changed from the days when neutrality and isolationism were the accepted ideals of the American people. Our nation is now deeply involved in

Professor Tewksbury, who passed away on December 8, 1958, had delivered this address in the summer. It was his final masterly statement in the area in which he was so deeply interested. This issue of The Record honors his memory.

international affairs, and our very survival is at stake; yet our schools, by and large, continue to educate national men and women of limited vision and understanding in world affairs.

As we face the profound changes that have taken place all about us, we are forced to ask ourselves why it is that our educational system has remained, for the most part, geared to producing young men and women with the same outlook on the world that we possessed in our youth. Why is it that our schools have failed to prepare the next generation for the world that has become so different? Must we assume that schools tend to follow rather than to lead in times of social change? If so, then why do they follow so slowly the trend of the times?

It is certainly not necessary to document the proposition that the world about us has radically changed, or to furnish proof that the United States has

committed itself irrevocably to playing an active role in international affairs. Nor is it necessary to prove that our schools are still mainly devoted to making national men and women. It is necessary, however, to inquire into the reasons why American schools have lagged so far behind in preparing our young citizens for the realities of today's world.

We can, of course, say that the world revolution of our times has come about so suddenly that educators, like many others in our society, are overwhelmed and perplexed. In such a situation we know that many persons tend to go on doing the things they have been doing more or less successfully for a long time, leaving the more unmanageable world about them to wiser heads and hands, if such can be found. Few educators would wish, however, to plead this excuse; it would be too self-condemnatory.

After all, our educational leaders are presumed to have received special training for understanding the signs of the times, yet in this case they have failed us. Why is this so? A more fundamental diagnosis of the reasons for our educational inertia is certainly needed. What, then, are some of the deeper reasons that have kept our schools from facing up to the challenge of the world situation as it has developed in our time?

HISTORIC REJECTION OF THE OLD WORLD

We need to remind ourselves that the United States is a nation made up of immigrants who rejected the Old World from which they came. The words inscribed on the Statue of Liberty point up vividly this situation:

Give me your tired, your poor, Your huddled masses yearning to breathe free, The wretched refuse of your teeming shore, Send these, the homeless, tempest-tossed to me:

I lift my lamp beside the Golden Door.

Answering this call, the immigrants who came to these shores turned their backs on the rest of the world, and identified themselves with the America of their choice. Second-generation Americans carried their rejection to its utmost point, and their acceptance of America to its patriotic limit.

In this situation it was the schools of our country that performed the miracle of making Americans out of the children of immigrants. It was a notable achievement. We are proud of the fact that American schools have for a hundred years been dedicated to the task of training ancestors rather than descendants. It is clear that we wanted new men, fitted to the new continent, not descendants. This necessity, however, cut us off from the Old World.

In like manner, when we consider the goal of social adjustment that pervades American education, we find that it arose largely because we needed to make well-adjusted Americans out of Europeans. This was the historical imperative to which we responded. But the world around us now is radically different from the one we rejected. Moreover, the process of immigration has closed down. We now need, therefore, to reorient ourselves to the new world situation and to redirect our schools toward broader goals.

There are signs that this reorientation is in process, but it must be confessed that it will be extremely difficult for our schools to take a positive and constructive approach to the world and its problems. This is because this new approach to the world involves a reversal of the deep current of rejection of the rest of the world which has characterized American educational practice up to the pres-

ent. Fortunately, however, many Americans are now ready to accept the world as it exists, without undue rejection. Since this is true, educators can take up without too great delay their responsibility for the establishment of an educational system in this country that will prepare our youth to become "at home in the world." America must return to the world which created her.

CONSEQUENCES OF "BIGNESS" AND "SUCCESS"

We need to remember that the United States has achieved such a successful civilization—it is so big, so strong, so prosperous—that its citizens can hardly be expected to regard the rest of the world as anything but peripheral, foreign, and alien in a literal sense. Life in America has been such an absorbing adventure, the opportunities and resources have been so abundant, and fortune has smiled so often on this country, in war and in peace, that Americans find it very difficult to enter into the hopes and aspirations, the thoughts and perspectives, the joys and satisfactions of other peoples.

The years of our success as a Great Power make it difficult for us to comprehend what is really required of us as a Good Neighbor. Because we have been afflicted with the dizziness of success, our schools have failed to take seriously their responsibility for bringing students into touch with other peoples. They have failed to orient our youth to a world where there are now no foreigners and no aliens

It must be recognized, however, that America is not the only ethnocentric nation in the world; there are others which suffer severely from this national disease. But our country has its distinctive variety of ethnocentricity which is our problem, and ours alone, to solve. We have grown

fat on two world wars, and the period of the cold war has brought us even greater prosperity. Our military establishment now occupies a privileged position unprecedented in American history. Our people are in danger of becoming obsessed with the "military posture" recommended by our leaders. Peace has, in the meantime, become almost a subversive word. In this atmosphere our schools can hardly be expected to take up in earnest the task of making international men. A military posture directed toward an "alien" world congeals, it does not liberate, the minds and hearts of administrators and curriculum-makers.

Yet there is another face which America shows to the world, and many believe that this is the true America. It is an America that warms the hearts of mankind and calls forth the resources of good will that are not exhausted on this earth. It is an America that places itself as a partner wholeheartedly within the family of man. This is the America that can mobilize its schools for a positive and constructive program of international education for our youth that will meet the needs of our time. This is the America that can become a part of the world, that can take up in all modesty the role that befits a great nation, and that can implement in its dealings with other people the ideals of liberty, equality, and fraternity.

NEGATIVISMS AND DISTORTIONS OF ANTI-COMMUNISM

We need to face the additional fact that the American people have, for the past twelve years, been grossly oversold on the cold war. In the frozen atmosphere to which we have become accustomed, our minds have been dulled and our thinking has been distorted in many areas where clarity of thought is essential. In internal affairs we have tended to allow the mentality of McCarthyism, with its morbid fears and unhealthy practices, to threaten our historic liberties. In external affairs we have tended too often to treat our allies and other nations as pawns in a fateful game of power politics, rather than as active partners in the building of a new world.

It is no wonder that under the abnormal conditions of the cold war our educational leaders have kept their minds safely within bounds and the world at a distance. For too long our schools have remained frozen in their approach to the opportunities and requirements of the new age. Do not the American people need to be released from the paralyzing negativisms and distortions of anti-communism so that they may step forward with confidence to become a wholesome part of the new world?

It is true that communism has assumed proportions in the world that pose a threat to many of the institutions that we have cherished in the past. The rapid rise of revolutionary socialism in the Soviet Union, in China, and in other countries has brought about a shift in power relations in the world that has proved alarming for the capitalist countries where democracy has taken the forms which we prize. For these reasons, we have tended to emphasize the "threat" of communism and to neglect the genuine "challenge" which communism presents to our western institutions.

It is a distortion of our minds to become so obsessed with the threat of communism and its attendant evils that we fail to respond constructively to the challenge of this hundred years' movement, with its lessons for the reform of some of the basic weaknesses of Western society. At the same time, we recognize that this

need for change also exists in reverse for the people in the communist countries, and we know that unless social, economic, and political changes take place in both worlds, there is little possibility of peaceful coexistence in the years ahead. In the final analysis, revolutionary movements, however extreme, are a protest against unwholesome conditions in the world about us, so our primary task is to keep our attention clearly focused on the new

world that is yet to be built.

Our schools can be released for the building of the new world-the only true crusade—if the distortions of anticommunism are replaced by firm confidence in the ability of Americans to identify themselves earnestly, yet not uncritically, with the hopes and aspirations of other peoples. Our schools can be a positive force in this country for preparing future citizens for their world responsibilities if the American people recover confidence in themselves and call upon their schools to move out into the new world. This educational advance requires a mandate from the people, but at present this mandate is lacking because of our fixation on the negative aspects of the cold war.

Fortunately, however, certain groups of citizens and educators are ready and eager to move forward on a broad front to institute a program of international education in our schools. This is an encouraging sign, but the fog that hinders our vision must be cleared away, and the fears that paralyze our efforts must be overcome.

POSSIBILITY OF BREAK-THROUGH

The hindrances to educational advance which we have described do not compass all the difficulties that stand in the way of instituting programs of international education in American schools. The deep currents of rejection, self-satisfaction, and distortion in American society discussed above help to explain why our schools have dragged their feet in international education. But there are other powerful cultural influences in our society that militate against the acceptance of education for international cooperation as one of the "growing edges" for American education. Only two such influences will be mentioned before facing the crucial question as to whether a break-through is possible.

As we know, America has long been pre-eminent in the field of science and technology. The preoccupation of the American people with scientific and technological development in this military age has left few reserves of energy or imagination available for the equally important cultivation of the humanities, the arts, and the social sciences as they relate to international affairs. We recall that most Americans, confronted recently by the challenge of the Sputnik era, called simply for more science and technology in our schools. This was a natural, and in some ways a legitimate response, but some educators and a number of scientists warned that science alone was not necessarily the savior. Unless scientific education is linked closely with the study of human values and social institutions in a balanced curriculum, the atmosphere in our schools and colleges will not be conducive to the development of sound international education.

Again we face the fact that in this country of ours there exist abysmal ignorance and deep-seated prejudice relative to the peoples of Asia and Africa. Since these peoples make up more than half of the world's population and now seek their rightful place in the modern world, the problem is a serious one for

the United States. A recent book by Harold Robert Isaacs, Scratches on Our Mind, examines certain aspects of this situation in great detail. Until this particular ignorance can be eradicated and this prejudice toward people of color can be overcome, or at least ameliorated, international education can proceed but halfway toward its goal. The element of racial prejudice hidden in this situation is a much more serious block than most people realize to the establishment of an effective program of international education in American schools.

When we turn, in the light of the foregoing considerations, to ask ourselves whether there is a possibility of a breakthrough in international education in this country, we need not be utterly dismayed. America is still a pluralistic society, and there are many currents running through our society-some favorable, some unfavorable to such an educational advance. In recent years, many American citizens have come to an awareness of the role which America is expected to play in these critical days, and this creative minority is ready to support an international program in our schools. At the same time, an increasing number of educators are prepared to move ahead on new and exciting programs of international education, and some have already done so. A breakthrough is possible and probable, therefore, in spite of an unfavorable climate of opinion in this country, if certain groups of educators and citizens get together and demonstrate the feasibility and importance of such an advance. Schools need not follow the prevailing currents of opinion in a country as pluralistic as the United States; they can link themselves with the forward-looking elements in our society and win support for a break-through in international education.

In the remaining portions of this discussion, certain promising lines for advance will be considered in some detail.

DEVELOPING TEACHERS WITH WORLD PERSPECTIVE

It will be recognized that most advances in education originate in situations where leaders are being trained to meet new needs and new conditions. This means that one place we might look for a break-through would be at college and university centers, where teachers on all levels of instruction are being trained or retrained. Since the end of World War II, millions of dollars have been poured into training programs for specialists in international affairs. The graduates of these schools of international affairs and area institutes at our universities will sooner or later serve as catalytic agents in bringing about curriculum changes on a broad front in our educational system. It is an encouraging sign that many institutions of higher education are also making international courses available for all students as well as for specialists. These developments will eventually have an effect on the curricula of elementary and secondary schools.

It is unfortunate that in most cases schools of education and teachers colleges have not been the beneficiaries of special funds for the establishment of international programs. If special funds were made available for these professional institutions, a break-through in international education would be more likely, for teacher-training institutions are the key instruments for an advance in education. Promising developments in international education are, however, taking place in certain teacher-training institutions: at Teachers College in New York City, at the University of Chicago, at Stanford University, at New Paltz in

New York State, and at Newark in New Jersey, to name only a few. By and large, however, teacher-training institutions are still oriented to the traditional goal of making national men, who have little knowledge of the world about them. This situation cannot last forever. The ferment is rising, and new blood on the faculties of many teacher-training institutions will be demanding that teachers in training be oriented toward the world as well as toward the United States.

If a break-through in international education is to take place, it must happen ultimately in our teacher-training institutions. No amount of curriculum improvement on the local level will avail, unless teachers experience in their preservice or in-service training what it means to become a part of the world. Programs of international education in our schools need teachers trained in the skills and perspectives required in the new world. This is not a utopian dream; it is a desperate necessity which can be met only by a radical transformation of the curriculum and staff of our teacher-training institutions along international lines.

As we have suggested, there are movements directed toward this end, but at present the inertia is overwhelming and stultifying. The international influence stemming from our colleges and universities will ultimately have an effect, but it remains for some few schools of education and teachers colleges to take the lead and achieve a break-through on this critical point. Let us hope that special funds will be made available for this advance; that educational administrators will come to see that international instruction is one of the most important "growing edges" in education; and that the faculties of our teacher-training institutions will gain the skills, perspective, and confidence necessary to inspire and

lead the teachers of America to become "at home in the world."

CUMULATIVE EFFECTS OF FOREIGN TRAVEL

As we look for clues to future developments, we find that foreign travel has become in recent years a serious business for many Americans. Experience abroad, especially when it is undertaken in depth, provides a reservoir of understanding that will have a profound effect upon the growth and development of international education in our schools and colleges.

We are told that over three-quarters of a million Americans, exclusive of military personnel, traveled abroad last year for long or short stays. Of this total, some 13,000 were American students enrolled in universities abroad for a whole academic year. Many of these will become the future teachers of America. Some 1,500 were faculty members engaged in teaching or research abroad. One large university reports that 173 members of its faculty were abroad last year. These figures suggest that the cumulative effect of these migrations outward into the world will do much to correct the introverted thinking of Americans who have hitherto been preoccupied with parochial concerns. A silent revolution in international understanding is now taking place on many campuses as a result of this dramatic increase in serious foreign travel.

For many years it has been the custom for school teachers to spend the summers in foreign travel. It may be questioned, however, whether this form of tourism has had much effect on the viewpoints of the individuals concerned or on the school programs in which they participated on their return. Too many teachers, like other tourists, have become "eternal spectators," looking out on a world to which they will never belong.

Foreign travel, to be an effective antidote to provincialism, requires of the individual a supreme effort to identify with the people he visits and to see with the eyes of a participant, not those of merely a spectator. It is unfortunate that many travelers return with their prejudices confirmed and their stereotypes reinforced by what they have seen, for they have looked at the world through American eyes-in fact they have never left America. There are, on the other hand, those who have stayed at home, yet possess that sensitivity to and understanding of other peoples which are marks of a person who belongs to the world. Nevertheless, foreign travel remains, for those who take it seriously, a laboratory without equal for the understanding and practice of international human relations.

In our world today a vast process of transculturation is taking place as a result of the movement of many persons across national boundaries. This process has been accelerated in recent years, and intercultural exchange has been expanded this year to include participants from some of the communist countries. America has been a leader in this world-wide exchange. Our educational institutions have participated actively in extensive exchange programs, and in addition many institutions have initiated field courses with credit for students who wish to study abroad. Thus the ground is being prepared in this country for a breakthrough in international education in our schools and colleges, for sooner or later those who have traveled widely and wisely will exert a determining influence on the mental climate of our country. Wendell Willkie was not the only American who discovered that the world is now, in fact, "one world." Their number is now legion, and their influence in the near future will bring about profound

changes in our educational institutions along international lines.

FOREIGN VISITORS AS RESOURCE PERSONS

There exists in the United States today an enormous yet neglected reservoir of talent for the teaching of international affairs in the tens of thousands of foreign students, teachers, and visitors now sojourning in our country. These already carefully selected visitors from many lands could well be invited to serve as informants and resource persons in the schools of this country. By this means, American youth in many American classrooms could be brought into face-to-face contact with representatives of other cultures when they study about the world.

The potential values of such a development have been dramatically confirmed at Teachers College, Columbia University, by a successful experiment conducted during the last few years. During the academic year 1956-57, arrangements were made for 107 all-day visits by foreign students to representative schools in the Greater New York Area. For each of these visits the schools paid a fee of twenty dollars, which was usually charged off as an instructional item on the budget of the school. This experiment in international friendship has convinced many schools of the rich resources available for international education in the presence of foreign students and visitors in this country.

In 1956-57, there were in our American colleges and universities some 40,000 foreign students. There were also some 1,200 foreign teachers and research scholars. In addition, there were some 7,000 foreign physicians in our medical schools and hospitals. Furthermore, each year some thousands of foreign leaders and specialists visit the United States on private or government grants. All of these

visitors come to the United States to study American institutions and society, and most of them would welcome invitations to visit elementary and secondary schools to talk about their respective cultures and the world. Arrangements for such visits could well be made through the Foreign-Student Advisers located at the thousand and more colleges and universities in our land. Careful preparations need to be made for such visits in order that sound educational values may be achieved. For too long, scattered foreign visitors at our schools have been shown off as curiosities from some alien land. Now is the time for American educators to involve our many visitors in the work of our schools on an educational basis without fanfare and

without artificiality.

American youth needs to be brought into firsthand contact with these talented foreign visitors in order to discover that persons from other cultures are human beings in their own right, as well as representatives of their respective cultures. These guest teachers are a "living library of people" available to the schools and colleges of our land. They would bring a dimension of reality into our classrooms, and all members of the school community would benefit—the students, the teachers, the administrators, the parents, and the guests themselves. There would be a sharing of experiences and perspectives on the common problems of humanity. The world would be brought into our classrooms, and international education would become an exciting adventure in the understanding of the world. This promising development is worthy of a trial on an extensive scale throughout the schools of this country.

IMPROVED FOREIGN-LANGUAGE TEACHING

We are witnessing at this time in the United States a rising interest in the

teaching of foreign languages. This is a significant development in a country that has for so long been backward in the field of foreign languages. It was during the years of World War II that an interest in the teaching of foreign languages developed out of military necessity. New methods of teaching foreign languages used during the war were successful in training many military personnel for service abroad. At the end of the war, colleges and universities continued to experiment with intensive language courses which emphasized, among other things, oral facility. Dramatic advances in the science of linguistics had laid the foundation for these more effective methods of teaching. Many Americans began to think that the acquisition of a foreign language was not only possible but desirable. These were encouraging signs in a situation where it became obvious that if America was to become a part of the world, it would need to give much greater attention to the teaching of foreign languages in its schools and colleges.

It remained, however, for the Sputnik crisis to dramatize on a still wider scale the need for more and better teaching of foreign languages, as well as of science and mathematics. The American people, seemingly for the first time, became aware of the challenge of Soviet education, and in particular of the extent and success of Soviet instruction in foreign languages. Concurrently, the attention of many educators was drawn to the emphasis put upon foreign-language instruction in European nations, especially in the Scandinavian countries. It became clear that if America was to exercise leadership in the world today, its youth would need to acquire greater facility in foreign languages. Thus the movement for more general and effective instruction in foreign languages in our colleges and schools received an added impetus

from external sources. This movement, however, is still faced with many difficulties and much inertia on the part of the public.

Among the difficulties standing in the way of a general advance, three may be briefly mentioned, First, there are still many Americans who are reluctant to capitalize on the language facilities brought over to this land by their immigrant ancestors. Fortunately, however, the extreme assimilative patterns of the past have undergone some change in recent years in the direction of placing more emphasis upon development of the distinctive cultural inheritances of our immigrant population. If this change in attitude becomes more general, our youth will begin to take pride in the language of their fathers, and foreign-language instructors in our schools will be able to build on a foundation hitherto hidden and neglected. Second, our language teachers have been accustomed to the prevailing practice in our schools of emphasizing the reading of other languages, to the neglect of oral mastery. Now that modern methods of teaching have demonstrated the importance of an early mastery of the oral aspects of foreign language, teachers will need to be reoriented and retrained along these lines. This reorientation would bring about a revolutionary change in language teaching in this country.

Third, it seems that college requirements and customs in the United States have ordained a pattern of two years of foreign language in our better secondary schools. This pattern in most cases has led nowhere. Many educators are now advocating that foreign languages be begun in our elementary schools and be continued for six years, with an early emphasis on oral facility. If this movement wins general acceptance among elementary teachers, foreign-language in-

struction in our schools will be greatly improved, and American youth will be on their way to becoming a part of the world through the door of language.

In summary, it becomes clear that a break-through in international education on the language front is a definite possibility, but the language potentialities of our immigrant population will need to be capitalized; our language teachers will need to place more emphasis upon oral facility in their teaching, and the movement for beginning foreign languages in the elementary school will need to gain wide acceptance throughout the country. These developments will do much to open the windows of the minds of our youth to the world about them and to bring in the day when international education will become a normal and vital element in the program of American schools.

NEW CONCEPTIONS

It is significant that during the past twelve years much progress has been made in our colleges and universities in defining the nature and scope of the academic discipline known as international relations. It may be expected that this theoretical development will open up new avenues and approaches to the study of international affairs in our elementary, secondary, and teacher-training institu-

We find that international relations, as now taught, deal with the political, social, economic, legal, and cultural relations between national states and their peoples, with the comparative systems of government and political ideology that exist in the world, and with the structure and functions of the international community and its institutions. The world may thus be approached from the study of the relationships which exist between its

parts; from the study of its various parts for their own sake; and from the study of the whole as an emergent international society of men.

Programs of international education in our schools should provide for all three approaches to the world. Unfortunately, it is the last of the three approaches that is most often neglected. Thus the parts of the world and their relations to each other are studied, but not the whole of human society within which the parts function. In these days when mankind lives under the shadow of the atom bomb, the study of the whole on its own account becomes a desperate necessity. For long, mankind has been for many people an abstract term; now it can become for everyone a living reality. The "family of man" as we know it has recently been portrayed in a memorable volume of photographs; it is now appropriate that this family be studied inten-

sively in our schools.

The teaching of international affairs in our universities has of late been characterized by a heavy dose of realism. Our schools, on the other hand, continue to teach about the world with a kind of sentimentality that avoids the harsh realities of our times. Nevertheless, there are encouraging signs that both extremes in emphasis are in process of modification. Power and might do not exhaust the full reality of man's relations to man; neither do ideas and ideals suffice to guide the affairs of man. Our schools can avoid the deceptions that go under the name of realism, as well as the illusions that are perpetuated under the guise of idealism. These are signs that many teachers on all levels of instruction have become conscious of the necessity to present to their students the full range of realities that operate in the world today.

We find again that in our universities

the academic study of international relations is considered an interdisciplinary subject, which means that all departments are asked to cooperate in the teaching of international affairs, since each area of specialization has its own contribution to make to the understanding of the world. Thus, in our schools, while the social studies will carry the main responsibility for the teaching of international affairs, we will do well to expect that each division of the curriculum will place its subject matter within an international frame. No one segment of the school curriculum can carry the load of international education alone; the whole curriculum in our schools must be internationalized, as in the past it has been nationalized. A break-through in international education in our schools will take place when the teaching staff find it natural to conceive of their own specialities in international as well as in local and national terms. The day is not far distant when the conceptions of the nature and scope of international education will be better understood and more effectively implemented.

PROSPECTS FOR INTERNATIONAL EDUCATION

The considerations which have been brought forward in this discussion suggest that the prospects for international education in this country are improving with each passing year. Some of the deep-seated social and psychological resistances to educational advance in the controversial area of international affairs have been breaking down owing to the continued impact of world events and the demands for leadership that have been thrust upon this country. During the past few years, the American people have learned many lessons from their heavy involvement in world affairs, chief of

which is that the United States cannot "go it alone." Furthermore, the truth of the scriptural injunction "to whom much is given, much will be required," has been vividly borne in recently upon many Americans. Many things will be required of the United States in the immediate future. These stern requirements cannot be met unless our school and college programs for international education are greatly improved and strengthened. It has often been said that we are witnessing in the world today a race between education and catastrophe. Since there is a growing realization that the catastrophe which we face will be total, education may yet have a chance to win out in this fateful race. Fortunately, in America, there are signs that many people are beginning to take seriously their responsibility for preparing themselves and their children educationally for the requirements of the new age.

It would be inadvisable, however, for educators in this country to minimize the difficulties which they will face in the promotion of international education in our schools and colleges. The all-toopervasive influences stemming from our historic rejection of the old world, our overconfidence in past successes in war and peace, our tendency to allow anticommunism to distort our minds, our too great preoccupation with science and technology, and our ignorance and prejudices toward the non-Western world still remain as massive blocks to educational advance. Furthermore, if we carry our analysis of American society to deeper economic and political levels, it is not clear in what direction capitalism and nationalism will carry us. If the cold war is in fact a conflict between capitalism and socialism, then the goal of international education can only be the preparation of our citizens for the ultimate victory of the capitalist order. Obviously, a more reasonable approach to the economic aspects of the world struggle is needed, since neither capitalism nor socialism is fixed in the order of nature. Again, nationalism still remains the ideal and practice of modern states in the world today. National interest, narrowly conceived, continues to govern the affairs of man, admitting no morality higher than the nation. In this situation, international education can find only a sentimental justification for considering the interests of mankind. It is clear that a broader conception of the national interest is needed, since we are all parts of the whole. Taking all these considerations into account, it is only realistic to conclude that there will be many difficulties in the way of instituting effective programs of international education in our schools and colleges.

What, then, can we expect as we look forward to the next decade in international education? What are some of the promising lines of development which in time can bring about a break-through in international education in this country? It has already been pointed out that an educational advance can take place and is doing so on at least five fronts: in the training at university centers of teachers with a world view; in the cumulative effects of increased foreign travel for educational purposes; in the use of foreign students and visitors as resource persons in classroom teaching about the world; in the movement for improved foreign-language teaching; and in the development of new conceptions of the nature and scope of international education. These are all strategic fronts where success will in time bring rich results. In the final analysis, educators must keep in touch with the forward-looking elements in American society if the educational enterprise in this country is to maintain its position of leadership and influence in times of social change. Large segments of our population will give support to schools and colleges which venture forth on strategic fronts to achieve a breakthrough in international education. This dynamic relationship between schools and society will be the answer to those who ask whether schools should lead or follow society.

In conclusion, we may draw encouragement and strength from the fact that there is an America that is ready to move forward to become a part of the world. This America has much to contribute and much to learn as it enters into partnership with mankind. For long, this country has been a symbol of hope for the world. Abraham Lincoln expressed this early vision of America when he said that this is the country "which gave a hope to all the world for all future time." It is our responsibility to translate this hope into a living reality for our times. To translate this hope into modern terms, appropriate to the new and perilous conditions which we face in the world today, is no simple task. What is now required is that America stand forth as a nation resolved to become a full-fledged partner in the world. The Statue of Liberty can serve henceforth not only as a symbol of hope for those who seek these shores, but also as a symbol of fraternity, pledging the allegiance of America to the cause of mankind around the world. The prospects for international education in this country will be immeasurably improved when this positive conception of the role of America in the world becomes the accepted ideal of the American people.

Some British Views on American Education*

KARL W. BIGELOW

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British observers publicly reported their impressions of American education. I propose to summarize in this discussion what they had to say, then offer some comments of my own.

A PARENT'S REACTION

Let me first summon a lay witness, the novelist Don Jacobson, reporting on a year in Palo Alto.¹ When he got back to England and sought to formulate the general idea of America that he had attained—"of America not necessarily as it is, but America as the Americans like to believe it might be, it could be, it should be"—he found that much of that idea had been drawn from the school that his seven-year-old son had attended.

"On every day," Mr. Jacobson writes of that school, "occasions were found for the expression of love, esteem, and mutual regard; on every day favoritism or discrimination or competition were forbidden within its precincts. . . 'We want to make your children happy,' the

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for Education, Hamburg.

1 "Everything without Tears: West Coast Impressions," Encounter, Vol. 10 (June, 1958),
29-37.

headmaster told the assembled parents [at the beginning of the year]; and it seemed to be taken for granted by him and the parents that happiness should be a matter of cooperation, collective enterprises, and democratically indiscriminate goodwill."

This vision Mr. Jacobson found also to be shared by the devoted and hard-working teachers, and he pays warm tribute to their "gentleness and leniency . . ., their unending anxiety that the children in their care should be and should remain together happily . . ." He was bowled over by the "facilities available to the school to be gentle, lenient, and anxious with. The school was like a treasurehouse," he writes, "a place where the children dipped their hands into heaps of wonderful possessions, which were replaced as fast as they were taken out. There was nothing that the school might possibly have needed that the children had to do without, and there were, in addition, a hundred other things that the children did not need-that no child could possibly need—but were available for them nevertheless.

"When one is in a position to take for granted such ample supplies of the very highest quality materials and facilities," Mr. Jacobson proceeds, "it begins to appear almost reasonable to hope that life and human affairs—or rather, and even more optimistic yet—that school-life and children's affairs can be a matter of goodwill, peace, and cooperation only. The world was there to treat the children kindly, and it did: School and home were alike in the obeisance they made before the children, in the gentleness with which they handled their charges, in the lavishness with which they provided them with all the things that the great American technology could offer."

Now Mr. Jacobson was aware, of course, that the school his son attended was a "good" one, probably, indeed, unusually "good"—but he concluded that "it was good in a way that any American might hope all the schools in the country might one day be." This conclusion takes in too much territory. There are certainly some Americans who would prefer to see more competition, more sternness, greater emphasis on individualism, and more frugality in our schools. But probably most of us will warm to the picture as drawn.

But what did Mr. Jacobson, as a parent, think of it all? He does not precisely say, but we may infer something from what he reports of the effects upon his son. "Our child," he writes, ". . . though he came to the school as a stranger, ... was happier in it than he had been at school in England. . . . Too, . . . he was more at ease and socially adept with adults and with other children than he had been before. . . ." And how about the three R's? "It must be added," Mr. Jacobson reports, "that . . . his writing positively deteriorated, his spelling certainly did not improve, and what progress he made in arithmetic could be at best described as very slow. . . . He did learn a great deal," the writer conscientiously adds, "about the craft of pottery, the distribution of milk from a local

wholesale dairy, the rules of fire-prevention, and things like that."

A GRAMMAR SCHOOL MAN SPEAKS

But let us turn from the layman to a professional, Lord James of Rusholme (formerly Sir Eric James), High Master -we would call him principal-of the Manchester Grammar School. The English grammar school, a strictly "academic" institution, non-coeducational in character, and with rigorous standards of admission, retention, and graduation (as we should say), is the cornerstone of the English secondary-school system, although it does not have the social prestige of the great so-called "public" boarding schools, such as Winchester, Eton, and Harrow. The grammar school is entered, at the age of eleven plus, by virtue of successful examination. The alternatives, the secondary modern schools "general" in character—and the junior technical schools and art departments, do not have comparable standing in the eyes of most parents—at least those of middle or higher class. Only the products of grammar or "public" school are likely to be able to obtain—at the age of about eighteen and through examinations conducted by the universities—the General Certificate of Education at Advanced Level. This testimonial to academic achievement is indispensable for admission not only to the universities but to many occupations.

I should make two further statements about the grammar school. First, that it includes a Sixth Form, an additional year or two, indispensable as preparation for the G.C.E. at Advanced Level, in which work of collegiate grade (by American standards) is offered, and where a high degree of specialization—on the arts or science sides—is begun. The

statement is that the grammar school feels currently under attack by proponents of a new, and as yet limited, developmentthe "comprehensive" secondary school. This, as the name implies, is a unit offering under one roof academic, general, and technical programs and catering to all children in its locality beyond the age of eleven plus. The proponents of the comprehensive school-the American inspiration for which is generally recognized-argue that it is more democratic, and that it can mitigate what they consider the evils of the sorting-out process that now takes place at so tender an age as eleven plus.

Now the Manchester Grammar School (which is for boys) ranks high indeed among institutions of its type—many would say at the top. Lord James, who formerly was a master at Winchester, the oldest of the "public" schools (it was founded just one hundred and ten years before Columbus discovered America), is generally considered the leading defender of the grammar-school tradition. Let us see what he had to say about American education after a three months'

visit to this country in 1957.2

Like Mr. Jacobson, he sees our educational system as "intimately related to America's social organization, its economic structure, and the ultimate ideals of its citizens. . . ." But this background seems less simple to him than to the novelist. He writes of "the contradictions that are discernible in the American way of life," of "the paradoxes of a community that is both ruggedly individualist and yet values social conformity, that is both materialist and full of idealism, practical, yet devoted to self-analysis and theoretical abstraction. . . ."

When he examines American education he is struck, first of all, by the fact that "the sheer amount of educational activity is far greater in America than in England"-whether measured by the quantity of money spent, the proportion of an age-group in school, or the importance attached to education by ordinary people. This he attributes to American belief in the reality of progress and American commitment to egalitarian political beliefs. Through education an individual and a nation may hope to get ahead, and no one should be denied his chance even in the face of the most adverse omens.

I should guess that what Lord James is suggesting here is that the "gentleness," "leniency," and "obeisance" that Mr. Jacobson was impressed by in the lower grades persist in the higher ones in the form of an unwillingness to risk hurting young people by requiring them either to meet high academic standards or to leave school and go to work. Certainly he agrees with Mr. Jacobson's implicit conclusion that "the object of [American] schools is not to reach certain academic levels [as in England]; it is primarily to inculcate certain social attitudes." This American aim Lord James considers defensible in a country with "a population of diverse national and racial origins," and he praises the generosity and concern that it connotes; but he concludes that "it is prodigally wasteful of time and energy and resources. It also easily leads," he adds, "to a derogation of those aspects of culture which are not accessible to all people, and which may, therefore, be thought to be undemocratic."

Even in the United States, he notes, "the contradiction that exists between the American interpretation of democracy and the appreciation and fostering of high intellectual qualities at an early

² "American Reflections," London Times Educational Supplement, 8 November, and 15 November, 1957.

stage" has not yet been resolved to the satisfaction of all.

Lord James believes that the abler American boys and girls at eighteen are, academically speaking, at least two years behind their English contemporaries. This he attributes to "a slower tempo of work, the unselective nature of the groups taught, and the inclusion in school hours of activities . . . [pursued in England] out of school, if at all." Nevertheless, the Americans will, in far larger proportions than the English, be admitted to college where they must be taught much that in England they would have learned previously. Yet eventually the United States, despite its leisurely educational pace and non-rigorous educational standards, produces—he is clear -men and women as well educated in their line as their English opposite numbers. How is this possible? He finds the answer in the American graduate school. "Practically any student," he writes, "with the ability which in England would have been required to secure a university place at all will, in America, go on to work beyond his first degree." This, he concludes, is a luxurious arrangement which England cannot afford. ". . . A relatively poor country dependent upon technical skill and maximum employment of ability for survival, must rely upon an educational system that by selection and hard work and economical use of its teaching resources reaches a given level of attainment as early as possible."3 It follows that in England the

³ The relation between national wealth and education may well be quite other than Lord James here suggests. Professor Theodore W. Schultz, University of Chicago economist, has concluded that the relatively large proportion of young Americans completing high school, college, and programs of graduate study possibly accounts for America's recent outstripping of Britain as respects economic growth and output per man-hour. See his chapter, "The

grammar school should be preserved.

I have already mentioned the specialization that characterizes work in the Sixth Form of the English grammar school. This ordinarily continues in the universities. Against this background Lord James was struck-and favorably so-by the better programs of general education that he observed in American colleges of liberal arts and institutes of technology. ". . . The suspicion is hard to avoid," he declares, "that these students are getting something of great value that they would very rarely find in England. . . . It is doubtful whether we can ignore the challenge of the best American practice to think again about our assumption that general education can be left to look after itself once the school years are over." He does not, it may be noted, recommend that specialization be reduced in the Sixth Formthough such recommendation has been made by others; nor does he suggest how time is to be found by the university for the addition that he favors.

In closing, Lord James touches on problems relating to teachers in American schools. The shortage of supply he considers much more serious even than in England, being complicated by the fact that the demand at the college level is so much greater here. "Moreover," he concludes, "the professional educationist exercises by English standards far too great an influence, and the status of the actual teacher as distinct from the administrator is too low."

These last criticisms are not elaborated, but it is reasonable to imagine that they reflect experience and satisfaction with

Emerging Economic Scene and Its Relation to High-School Education," in Francis S. Chase and Harold A. Anderson, Eds., The School in a New Era (Chicago: University of Chicago Press, 1958), pp. 97-109.

two of the most jealously guarded principles of the British educational system the autonomy of the individual school and the professional freedom of the individual teacher. Each school in England is "regarded primarily as a living organism, a community of people, and not merely as a pedagogic unit in an impersonal system."4 Each individual school, public or private, characteristically has its own board of managers or governors, which normally entrusts "the utmost freedom [to the head or principal teacher] to plan and regulate the organization, curriculum, syllabuses, discipline, and extra-curricular activities. . . ." The head teacher in turn, "allows to-and expects from—the members of the assistant staff [that is, the classroom teachers generally] a large measure of personal initiative...."5 While all the publicly maintained schools of a county or municipality are under the general control of a lay "education committee," with a "chief education officer" as its administrative agent, it would be unprecedented for these functionaries to attempt to dictate to an individual school or to its teachers. As to "professional educationists," staff members of the two-year training colleges and of the university departments of education, their influence too is limited by the highly decentralized character of the educational system and the tradition of freedom and responsibility attaching to the particular school and the particular classroom teacher.

VIEWS OF A VISITING PROFESSOR

Reference to the education and training of teachers—both terms are used in England—provides occasion for me to

⁴ H. C. Dent, *British Education*, Revised edition (London: Longmans, Green, 1948), p. 10.
⁵ *Ibid.*, p. 11.

summon my third witness, an anonymous Englishwoman reporting on a year's experience as visiting professor in an American teachers college.⁶

This observer was particularly struck by something that escaped Mr. Jacobson altogether and to which Lord James referred only in passing, namely the current conflict in American thought regarding our system of education. She found the staff of the teachers college to which she was attached "divided into two camps. . . . The lecturers in education," she writes, "were all convinced of the general rightness of the American way, with its emphasis on the cooperation of the child in his own education, on social training, on democracy within the school, and on a curriculum which embraced both general education and numerous options suited to the tastes and needs of the individual pupils. The subject lecturers, on the other hand," she continues, "were almost [unanimous] in condemnation of the prevalent low standards. . . . They complained of the illdisciplined and ill-furnished minds that students brought from high school to college. In their view, the apparently laudable attempt to fit the school to the child produced, in fact, students who, academically speaking, were irreclaimable-sloppy in their thought processes, sadly ignorant of the achievements of other peoples and nations, incredulous of the demands that serious study must make and resentful of any attempt to impose that demand upon them. . . . I found a similar feeling," she concludes, "among some high school people who, through the exchange scheme, had had personal acquaintance with the academic rigour of an English grammar school. They

6 "American Teachers College," London Times Educational Supplement, 2 May and 9 May, 1958.

looked back on that experience with nos-

talgic awe."

This English visitor was not inclined, however, to take a position wholly in either of the two camps. Close study of the offerings of the local high schools left her "much impressed with their realism, their width and their value to the ordinary child." But she became "equally convinced that their very width and their suitability to the ordinary child make them inadequate fodder for the aspirant to a college education." Consequently the continuation of the student's basic education during the first few years of the teachers college was "very necessary," the visitor thought, as a means of striving to reach a standard attained in England at the conclusion of the grammar school period. Here there is agreement with Lord James-and, I may add, a host of other English observers.

The situation was complicated, the visiting professor concluded, by the lack of rigorous admission standards at the teachers college. High-school grades were chiefly relied upon, but their significance depended upon the particular school by which they were awarded, and in any case the shortage of teachers appeared to dispose the colleges to admit applicants with relatively poor records. Perhaps she might have argued, had the point occurred to her, that there was also here, at the college level, a manifestation of gentleness, leniency, and deference to the young. Certainly she regretted the absence in America of something corresponding to the English General Certificate of Education, based on universityadministered common examinations taken by grammar-school pupils at the age of sixteen plus. (The examination at the Advanced Level, to which I earlier referred, is taken by a select group two years later.)

It is a great help to English training colleges, she writes, "to know that they cannot, except in unusual circumstances, accept a candidate without a G. C. E. in five subjects at . . . [a specified minimum] level. It saves a lot of argument and prevents the colleges from being cluttered up with a lot of non-starters"—by which I suppose she really means "non-finishers."

There is a certain paradox in the English emphasis on the autonomy of the individual school, coupled with reliance on a system of national examinations. The latter inevitably exercise a powerful standardizing influence—as do the Regents' Examinations in New York State, to pick a comparable American example—on the decisions reached in each school as to what shall be taught and to what level. There are disadvantages to this arrangement too, of which the English themselves are far from being unaware.

But to return to our visiting professor. She was also doubtful of the American system of short courses "in this or that subject," feeling that it militated against depth of study. Moreover the classes generally—of 25 to 30 students—were, to her mind, too large. She preferred the English arrangement of relatively few lectures to much larger numbers, and special emphasis on tutorial work with individual students or quite small groups.

She also missed the English practice of using external examiners. According to this arrangement final decisions as to the accomplishment of college and university students can only be made in cooperation with "outside" faculty members. This, our visitor argues, is "a great help in maintaining standards." She reports herself as "not at all impressed" by the severity of some of the examinations given by her American colleagues. "I did my own share of supervising there," she writes, "and was astonished to find,

on a two-hour examination, not a single student left in the room at the end of three-quarters of an hour. My own examination," she continues, "ground on for its full two hours. The pained glances that the girls flung at me from time to time over their labouring pens made it clear that I was nothing but a brute." However her behavior did not seem to be held against her, and she "concluded that . . . [her] unfortunate breach of protocol had been kindly put down to . . . [her] foreignness."

But the foreigner was not spared what she describes as "a kind of inquest between the student and her tutor over any low grades"—an experience, she writes, that "I found rather tiresome, being accustomed to have my marks accepted without question." And she was rather horrified to discover the American institution of "marking on the curve," which she explains to her British readers as meaning that "one presumably must give some A's as well as some F's, whatever one may think of the general standard of the work."

Let us now turn to another contrast. In England, higher education-including especially that preparatory for teaching is, in general, tuition-free. More than that, living allowances are extensively provided from the public purse; and these allowances are based on estimates of need for a full calendar year, since it is the English assumption that study will be independently pursued during vacation periods. Our visitor was startled, therefore, to discover that in this country tuition is charged even by publicly maintained colleges and that allowances for room, board, and other expenses are only rarely available. Of the related phenomenon of "working one's way through college" she came to take a very dim view indeed. She relates several experiences with students who were unable to keep up with their work and who pressed her for lighter assignments because so much of their time and energy had to be devoted to their jobs. "I am sure," she concludes, "that, however good it may be for a student's character that he should earn his fees and other costs, it is extremely bad for national standards of attainment that so many American college and university students are throwing away time which they could well use for study, and so many of them in jobs which leave them jaded and fatigued and unfit for mental effort."

Yet the Englishwoman "found much to like and admire in . . . [her] American students" despite all the disadvantages from which they seemed to suffer. "They were," she writes, "fresh and interested in many aspects of life; they had a fund of general knowledge which did them great credit. They were well read in good magazines and I felt that they had learned a great deal in high school which fitted them for life in bustling modern America. They were highly democratic in their approach to people and . . . I quickly grew to . . . realize how pleasant it was to be treated by students as a fellow-human being and not as a respected elder. Their attitude to knowledge also interested me: they appreciated the fact that their tutors knew more than they did, but they did not allow this to overawe them-their view being that they would soon catch up with their tutors and be as good as they."

This observer's final paragraph may be appropriately quoted in concluding my report on her views. "To pass judgment on a foreign system of education is much easier when one has not experienced it," she accurately writes. "I went to the United States with some typical British prejudices about American education. I

came back with a clearer knowledge of its weaknesses in the way of academic standards, some reasons for which I have tried to elucidate. . . . But I came back also convinced that the system of education is an important factor in producing the deep sense of personal liberty and of self-reliance that animates the young American. He may not be so clever as our feather-bedded students here, but he knows what he wants and makes the most arduous efforts to secure the education and training that he needs. It is sad," she adds at the very end, "that because of those very efforts so much of the real values of education often escape him."

SUMMARY AND RESPONSE

We have now heard all three of our witnesses, and may turn our attention to weighing what they have told us. But first, perhaps, we can agree that their testimony has been thoughtful and courteous; that they have evidently tried to observe accurately, understand fully, and appraise fairly; that they have been both cordial and generous in what they have had to say.

How may we summarize that which they found most worthy of note when they compared American with English education? First, they all have recognized that American educational practices express American character and American circumstances. For our positive accomplishments in fitting young people for life in American society they have a genuine admiration. Yet they are clearly of the opinion that there are defects in our virtues. They feel that we do not ask, especially of our more gifted boys and girls, as much as they are capable of delivering-and would enjoy delivering. They suspect us of harboring a notion -which they would consider false-that there is something undemocratic about

the encouragement and recognition of distinguished intellectual achievement. They do not think it *really* kind in us not to challenge our children more vigorously.

These are the fundamental criticisms. We have, of course, been hearing them at home—often much more stridently and uncompromisingly stated by persons eager (as our English critics do not seem to be) to throw the baby out along with the bath water. Perhaps the more moderate tone of the witnesses I have just presented may incline us to ponder their

views more open-mindedly.

I believe that we should. Within the last few months I have heard two young Americans complain bitterly that they were not permitted in school-much less encouraged or expected—to work up to the level of which they now believe they were quite capable and which they are now sure they would have enjoyed. One, now a university graduate, was the product of a private preparatory school in the East. The other had attended the public schools of a leading city in the West, and was, when she volunteered her views to me, a freshman in an Eastern woman's college. Their unsolicited testimony was startlingly vehement. I know, of course, that young people are given to overstatement and that I must not infer a summer from two birds of an intellectual feather. Yet I cannot believe their cases are insignificant.

Of some of the practical recommendations of our English observers I own to being skeptical. The selective grammar school pattern is unlikely to prove generally feasible in the United States, though we must not overlook the shining example of such institutions as the Bronx High School of Science. Moreover, I am not persuaded that challenging provision for all categories of the

gifted is impossible within a comprehensive school.

Nor, despite the practical conveniences that our visiting professor notes, do I believe that we should contemplate more in the way of widely used common examinations. Plenty of Englishmen have sharply criticized these as they operate in their own country They do have a standardizing effect and they can become bêtes noires in the lives of children.

On the other hand, some of the detailed suggestions we have heard deserve close consideration. We do rely too heavily, I believe, on numerous short courses, often oddly patched together, as the means to an education. With the tutorial method of instruction I have had personal experience; from that experience I am convinced of the values for teaching and learning that its intimate contacts provide.

Finally, we can scarcely fail to be im-

pressed with the advantages, to undergraduates and to the nation, of the financial provisions in England that reflect social acceptance of responsibility for the nurturing of outstanding human talent. I should not want to see summer jobs or even occasional part-time jobs during the academic year go wholly out of fashion for American students-the classroom and the library cannot provide the learning values often available from work experiences. But I do agree that the main job of the student should be his studies, and that the United States of America should strive to catch up with British practice to make this possible.

Certainly we should thank our English friends for their testimony. They are honest, thoughtful people, and we should be thoughtful and honest too about their appraisals of our work. We all labor in the same cause. We can learn from one another.

Educational Problems in India and the United States*

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In drawing comparisons between educational problems in India and those in the United States, I am not attempting a critical analysis of the problems to be cited. Nor am I claiming superiority for the approach used in either country. In some instances I will merely be pointing out what may be an imbalance of emphasis in each nation. Yet this very imbalance may tend to highlight differences and help us by stimulating questioning or re-examination of what we are doing.

I have been much impressed by numerous similarities between India and the United States in respect to many of the educational problems which are of current concern in the two countries. In spite of our differences, our separation by half the distance round the world, and the great disparity in our economic development, we have much in common. I should like to present a few facts about India, compare a few problems and the approaches being made to them in the the two nations, and present four overall impressions.

RELEVANT FACTS

The Indian people are engaged in one of the most significant and thrilling po-

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litical and economic experiments of the twentieth century. They seek to demonstrate that the vast subcontinent that is India can achieve unity, democracy, and material well-being for the 400 million diverse people who inhabit the area.

India is only two-thirds the size of the United States, but its population is between two and three times as great. It is increasing by almost 12,000,000 or roughly 3 per cent per year. This annual increase is greater than the total population of each of several modern nations.

While much of the racial history of India is obscure, there is evidence of an Indus Valley civilization from 4000 to 2500 B.C. which was as rich and varied as any in Egypt or the Fertile Crescent at that time. From 2000 to 1000 B.C. there was an extensive movement of Hittites, Medes, and Persians into northern India. They probably came from central Asia or the area bordering the Caspian Sea. They conquered the Dravidians at least in North India. In the Epic Age, from 1000 to 500 B.C., Indian society was similar to that of the Homeric Age in Greece.

A succession of invaders has added to the complexity of India's languages and religions. Today there are over one hundred dialects, fourteen recognized languages, and several religious groups. The caste system is a further divisive force, with probably 50,000,000 former outcasts or untouchables at the base of Hindu society adding to the complexities of Indian life.

India has unique geographic and climatic conditions. Its seacoast of 3,400 miles extends along two sides and a wall of the Himalayas runs along the northern border for 1,600 miles. Located in the tropics, it is plagued by heat, drought, and torrential seasonal rains, but it has been and still is a rural agricultural economy. Well over 80 per cent of the people live in villages.

Despite a rich tradition, particularly in philosophy and the arts, India is poor economically. The annual per capita income is less than \$60 per person in contrast to about \$2,300 per person in the United States. Obviously, there are serious limitations to the amount that can be raised through taxation on this income. Government policies are definitely geared to substantially improving the economic base of the country within the present generation.

In its long history India was never completely unified until the coming of independence a little over a decade ago. Even during British rule, there were several hundred more or less independent feudal states.

India is thus a great and new experiment in unity, political democracy, and economic development. Its Constitution is based primarily on the British form of government, but has features drawn from our Constitution.

Education at the elementary and secondary levels is a state responsibility, with the union or national government taking leadership in higher education, especially as it relates to professional, vocational, or technical training. However, the national government is more active than ours in encouraging and stimulating numerous reforms. There is relatively little control below the state level except in the larger cities. The British influence tends to dominate the pattern and program at both the secondary and the higher level.

MUTUAL PROBLEMS

One cluster of problems shared by India and the United States relates to the tremendous task of gearing education to the demands of a rapidly changing universe.

Many unique conditions have shaped our program in the United States over almost two centuries. We had voluntary professionally sponsored commissions on the reorganization of elementary and secondary education in the early 1900's, and reorganizations of medical and other professional programs under professional and/or foundation auspices. In the 1930's we conducted the Eight-Year Study, a major effort in secondary education sponsored by a large foundation. This patern is continuing, and within the past year we have had a report by the education panel of the Rockefeller Brothers Fund, Înc., which attempts to restate our educational needs.1

While there have been demands for many years for gearing education to the social realities, the depression of the 1930's, World War II, and the Cold War since have had a terrific impact on the thinking of the American public, including educators. There is a growing recognition that changes resulting from the industrial revolution are small compared with those on the horizon as we begin to move into the atomic or electronic age. The changes in our means of communi-

¹ The Pursuit of Excellence, Education, and the Future of America. (Garden City, N. Y.: Doubleday and Company, Inc., 1958).

cation alone tend to outmode much that

we are doing in schools.

Although there is some alarm in this country about the situation and criticism is rife, there is little evidence of widespread willingness to support new or experimental ventures. In individual school systems there are exciting developments in specific areas. The so-called content areas receive frequent and thorough reorganization and teachers are being helped to make substantial improvements in subjects such as mathematics and science. Some foreign language programs at the elementary level are getting phenomenal results. Creative attempts are being made to challenge those with a great variety of talents without lessening the quality of the program for all children.

India is facing this same world, but with a somewhat different perspective. Ours is a new nation, with a strong tradition of education and learning. India has extensive plans for industrialization and improvement of every aspect of life, and education is seen as being essential to this whole process. But India must first develop the economic base which will permit the kind of education it wants and needs. Only slightly more than half of the children of primary school age are in school and less than 15 per cent of the secondary school age group are in attendance. Most Indian states are making an earnest effort to move toward primary education for all. Yet the need for scientists and engineers is forcing the national government to make professional and technical or engineering education an area of high priority in terms of financial support. The presence of half a million liberal arts graduates who are unemployed presents a major problem not only because of the presence of a large and able dissatisfied group but also because of the unwarranted or mistaken prestige attached to the Bachelor's degree and the need for redirecting the thinking of Indian youth and their par-

The Indian government has made use of national commissions as a means of starting basic reforms, but these have been official government commissions. The University Education Commission in 1948 and 1949, and the Secondary Education Commission, 1952 and 1953, charted major reforms at these levels. The basic or elementary education which has received the support of the Indian government is an extension of Gandhian ideas and has been furthered by a series of committees with special assignments. As a result of these national planning efforts, India is moving toward a five-year primary school, a six-year secondary school, and a three-year degree course

at the university level.

The University Grants Commission has been the national government's major agency for continuing the study and financial support of university education. All-India Councils have been established for technical education, secondary education and, in 1957, for basic education as the means of stimulating developments in these areas. Through support of pilot projects, research efforts, workshops, seminars and publications, the national government has been fostering reforms envisaged in national commissions, reports. However, states do assert their autonomy and many of the large numbers of privately managed schools and higher institutions follow rather independent lines of development.

Basic or elementary education lays stress on education through crafts. These are the simple, prevalent occupations of the communities, largely rural, in which the schools are located. The idea that these crafts should be productive and assist in the support of the school is still stressed. Correlation of other subjects with the crafts is emphasized as well as a community focus. Efforts are under way to create an eleven-year school, thereby making secondary education a six-year program. General education, including expanded programs in the social studies and the sciences, is receiving emphasis in both secondary schools and colleges. The new multi-purpose secondary school offers programs in technical subjects, agriculture, home science, business, music, and art. This is a radical departure from the English grammar school type of secondary education which exists throughout most of India.

Methods of teaching are receiving attention, with problem-solving and other higher mental processes being stressed in the effort to move from a memoriter type of teaching and learning in which great stress is placed on lectures or a

single factual text.

Foreign languages are of great concern in India, too, but not for the same reasons as in the United States. The 1957 Hindustan Yearbook lists 59 different Indian languages or dialects, each of which is spoken by more than 100,000 persons. The same Yearbook indicates 720 other Indian languages and dialects which are spoken by almost 3,000,000 persons. Indian policy provides that children shall be taught in their mother tongue during the primary years. If it is different from the state language, the latter is introduced in the third to the fifth class, or grade. Private societies are permitted to conduct secondary schools in the mother tongue and receive state support. However, study of the regional language is compulsory in the secondary school. Hindi, which is scheduled to become the national language, is the mother tongue of less than half the Indian people. Its teaching is being encouraged in much of the country and sometimes adds a third language. University education is generally in English, especially in the science areas. Language problems at this level have resulted in earnest efforts to introduce English in the first or second year of the secondary school. This detail indicates the tremendous language time burden with which the Indian schools are struggling.

Most visitors to India catch a certain spirit of educational reform. The needs of the new India are continually being studied and heroic efforts are being made to meet the challenge of the new society which has been blue-printed in great detail, but which no one can fully foresee. Many leaders of India appear to have an unusually broad perspective-a world outlook, as it were. They also have a sense of mission and discern an international role for India. They see education of a new and unique type as contributing to the way of life which they are so diligently seeking.

India has a delinquency or discipline problem, but much of it centers in that highly selected segment of the population in the universities. They call it indiscipline. Often there appear to be political overtones, and it may well be that adults are seeking to marshal the boisterous enthusiasm of youth behind their causes. Massive efforts at youth athletics and organizations, reforms in teacher-student relations, the introduction of pupil-personnel services, and other educative means are being used to grapple with the problem.

Very serious and complicated intergroup problems beset India. Language, religious, and caste differences frequently flare up. I presume the future of India may well depend upon the willingness of members of various groups to submerge these differences. The Constitution and statements of national political leaders are very clear on these differences. Castism is illegal, but giving the vote to the untouchables sometimes places the smaller Brahmin group at a great disadvantage. India has made a very interesting series of moves in seeking to bring about equality. Their objective is to assure equality of opportunity and to right past wrongs by providing scholarships and other kinds of assistance to the former untouchables and the tribal peoples.

India, like the United States, has a serious teacher shortage and an inade-quate salary policy. Attempts to transform liberal arts graduates into teachers have met with only limited success. A further difficulty arises because teachers in general are not trusted in professional areas. The examination system is by and large the determiner of students' success.

India is struggling very actively with its examination system, which has a strong standardizing and formalizing influence on the educational program. It is destructive of personalities of students and their parents. (The British, whose system was imposed on India, have had the same problem.) It appears impossible for the Indians to do away with the system. Recognizing its power, however, they seem to be on the way to using it to reform their educational program. A major effort is being made to create tests which will measure the attainment of the newer types of objectives which are talked about so freely but now completely overlooked in the examination process. One form this effort takes is workshops with teacher-training college staff members. Simultaneous attention is being given to learning experiences appropriate to the goals sought and tested by the examinations.

IMPRESSIONS RESULTING FROM COMPARISON

First, I wish to comment on the balance between local and national influences on education in India and the United States. The absence of a tradition of local government in India presents certain obvious contrasts to our situation in the United States. The princely states provided a feudal or authoritarian type of government in large sections of India up to the time of independence. The village panchayats had limited responsibilities and no taxing powers. Efforts are being made to encourage the development of local government agencies.

Local tradition in our country is a strong bulwark. We should carefully safeguard the full measure of local control of education that we now have. Sound education necessitates free and responsible teachers working with maximum independence.

Apologies are sometimes made in India for the extensive participation of the national government in educational matters. The newness of the country, the need for speed, the greater taxing power of the national government, or limited resources are often advanced as excuses for national efforts. I was impressed, however, with the great potential in national or state leadership in education.

In the United States we have been so fearful of federal intervention that we have frequently refused to face the problem. Actually we have, through various nongovernmental means, attained broad national acceptance of common goals. We have accepted nationally sponsored research but there has been very little of it—possibly not enough to concern us. Our textbook and materials producers have had a remarkable influence in standardizing and nationalizing our schools.

Professional organizations of all types have achieved remarkable vigor and results in spite of limited financing. Private foundations likewise have had great influence in the direction of unifying or standardizing our program on a national basis.

The means we have used to further education in the past may not be entirely adequate for the years ahead. I firmly believe we should give serious attention to three lines of effort to be sponsored by federal government funds:

1. Financing of a minimum basic pro-

gram without federal control.

2. Greatly expanded federal support of educational research which would test some of the major hypotheses relative to the consequences of alternate patterns of action.

3. Federal support of broad-based policy considerations which might lead to stimulation and coordination by consent. It is nothing short of amazing that in a country such as ours there are no major government-supported studies under way exploring the educational needs in the years ahead. The present proposals for federal scholarship aid appear to represent an opportunistic approach which may well endanger the future of our country unless they are based on sound studies of needs in all areas.

Second, I wish to comment on the pattern of public support for private education in India. That country has been blessed by a strong tradition of private support for education and social welfare. Many individuals with or without wealth are devoting their resources to educational ventures in true selflessness. The demand for education has so far outstripped the resources available that numerous schools have been established as private business ventures. Religious groups and private societies of all kinds have created

their own schools. In a city like Madras, the great majority of the secondary schools are privately managed.

The Indian government, lacking the resources to provide for all of the education desired, has generously contributed to various private groups and in some cases provides almost complete support for such institutions. In the United States we have what appears to be growing agitation for government support of private or parochial education, and some forms of assistance are now given. We also have growing advocacy of special public schools for the gifted or for other

specialized groups.

In our country we have firmly established the right of parents to send their children to schools of their own choosing. I vigorously support this right, but I believe there is a serious question as to the extent to which children can attend schools sponsored by various special-interest groups without contributing to disunity. Public schools have been a powerful force in binding together an extremely diverse population. Some of our greatest problems have occurred with groups which have not had the opportunity for association through common schools.

In India there are indications that the separation in schools is doing much to foster the disunity which the country is struggling so hard to overcome. Just how we can overcome the dangers of disunity, misunderstandings which result from artificial separations among a people, and gain recognition of the potential strength which ensues from a use of differences, I do not know. I do believe, however, that one of our most serious national and educational problems, here as in India, centers in our handling of the private–public support of education. I would hope that representatives of our

major public and private and parochial educational interests could be brought together to face squarely the implications of the policies we appear to be developing which lead to greater and greater segmentation and divisiveness in our educational provisions for children and youth.

Third, my experiences with the examination system in India cause me to be apprehensive about the increased use of standardized examinations as a basis for selection and for the determination of an individual's future. We have made great progress in using guidance to select and distribute people. Certainly these efforts can be improved. The introduction of widespread use of examinations for selection and scholarship purposes endangers, I believe, our whole educational system.

There appears to be ample evidence that it is not a sound and efficient way of proceeding and that it results in great injustices to individuals.

Fourth, my observations in India give me a renewed belief in the necessity of a well-prepared, independent, professional staff in our schools. While this is dependent to a very large degree on public understanding and support, have we done all that we might as a profession to encourage able youth to enter teaching and thus to raise ourselves by our own bootstraps? Increased respect will have to be earned. It cannot be bestowed by high salaries. I hope that we as a profession will give closer attention to our present and potential role in American life and to the ways and means by which we may serve better.

Educational Reform and Its Problems in Postwar Japan

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AR, defeat, and occupation—these are the three greatest misfortunes which the Japanese nation has experienced recently, and their effect will long be felt. In the thirteen postwar years the Japanese people have witnessed a series of extraordinary events that have brought new hope and optimism to their lives. They are the cultural, social, and political reforms symbolized, in the main, by the revision of the constitution and the firm resolution toward an inner resurgence. Of the many desirable changes wrought in the postwar years, educational reform is of special importance.

The educational reform of postwar Japan rests on that country's good educational tradition. It is also indebted to the outstanding achievements of progressive educators. I recognize that it owes much to the occupation authorities and particularly to the friendly scholastic advice of the two Education Missions from the United States. As the first Minister of Education under the new system, I acknowledge that debt.

Japan has experienced two great changes in its development as a modern democratic nation. Under the Meiji Restoration, which took place nearly a century ago, feudalistic Japan became a modern state. After the defeat in 1945 she became a democratic state. Consid-

ering the fundamental character of these changes, one may call the former a revolution and the latter a reform. These two national political changes sought their motivating power in education, the former through an educational revolution and the latter through an educational reform.

To understand correctly the basic character and varied problems of the educational reform since World War II, it is necessary to know something of the character and processes of the educational revolution of the early Meiji period. The main points of this revolution effected by the Meiji government were as follows:

- 1. Education was made a basic national policy for the construction of a new Japan. Not only was a revolution in the educational system planned, but many leaders hoped to accomplish cultural changes. The Westernization of Japanese culture was the goal of this movement.
- 2. In particular, efforts were made to introduce the French and American school systems.
- 3. The revolution provided direction for the democratization of education, and strove to make elementary education universal and compulsory.

4. Importance was placed on practical learning and on scientific instruction related to everyday life.

5. In moral education, individualistic and sometimes utilitarian morals were emphasized in place of the feudalistic morals based on "loyalty and patriotism."

The new school system was established by the Meiji government in 1872, creating the three-level school system of elementary, secondary, and higher education, a system which has continued, by

and large, to the present.

This fundamental educational innovation was the most vivid sign of the change the new Japan of Meiji had made in moving from a feudal to a modern state, yet within a few years there arose severe criticism. The chief points of criticism were that the educational revolution lacked an economic basis and consequently, with its sudden enforcement, considerable pressure was added to the poverty of the common people-an inevitable result in an underdeveloped country; that the new education, based on Western civilization, had forgotten Christianity, its spiritual source, and tended to introduce such superficial phases as military, legal, and industrial reforms; that the one-sided, pro-Western educational revolution threatened the traditional Oriental and Japanese spiritual values and confused the everyday morals of the people; and, finally, that with the diffusion of the new education, individualistic and materialistic tendencies became increasingly influential and endangered community consciousness and public spirit, especially patriotism.

Against such a background, Meiji Japan promulgated, in 1889, a new constitution and laid the foundation for a modern state. Paralleling this, a revision of education was undertaken. On the one

hand, this revision amplified and firmly established the progressive and rationalistic education and, on the other, it aimed at a reconciliation with the traditional Oriental culture and the nationalistic demands of the people. This educational service, during the middle period of Meiji, has been the basis of the Japanese educational system ever since.

Thus the Meiji educational revolution was remodeled into a form that synthesized the progressive rationalistic institutions of the West, the morals of the Orient, and modern nationalism. It became the foundation of Japanese education, and one might say that the remarkable spiritual basis of the new Japan can be attributed to it. One of the major contributions to the victory of Japan in three great wars—the Sino-Japanese War, the Russo-Japanese War, and World War I—can be found here.

However, the rapid development of the Japanese national state, combined with intensifying international tension and pressure, forced the young modern nation toward ultra-nationalism and militarism. Thus Japan was driven into the Manchurian Incident, the China Incident, and finally into World War II.

At the same time, the remodeled Meiji education lost its hold, and misguided nationalism and militarism became dominant. Japan actually experienced—at a high price—the dangers of frantic nationalism and chauvinism that are inherent in an education of a certain type.

Rising from the ravages of war the Japanese people put an end to the ultranationalism and militarism that had brought about defeat, and aspired to construct a cultural, democratic, and peaceful welfare state. The new constitution, which made clear the foundation of this state, was established in 1946. In the belief that these noble ideals could

be realized by the power of education, a second great educational reform was carried out.

This remarkable educational reform could not have happened without an event as drastic as defeat. But it should not be thought that it was simply forced on the Japanese nation from outside. We are quite ready to admit—as I said before-that this reform owes much to the suggestions and advice of the two Educational Missions from the United Statesin 1946 and 1950—and to the cooperation of the occupation authorities. However, the embodiment and realization of this educational reform would have been impossible without the positive cooperation of progressive Japanese scholars and educators.

Educational reform has been part of the basic national policy to implement the spiritual reconstruction of postwar Japan, emphasizing—for the second time—Westernization, and with democratization as its keynote. Therefore, it included not only educational reform but cultural and spiritual reform. The schools and educational systems of the United States were the chief models, with emphasis on practical knowledge closely related to everyday life and individualistic morals. In this respect there is close resemblance to the early Meiji educational revolution.

The most fundamental change in this reform, which would not have been realized without defeat, was perhaps the abolition of the Imperial Rescript on Education and the decision not to express principles in the Emperor's words. Inasmuch as the Imperial Rescript on Education, together with the Meiji constitution, had been the guiding principle of Japanese education for half a century, the significance of its withdrawal is very deep. In place of the Rescript, the guiding education principles of postwar Japan

were announced in the Fundamental Education Law promulgated by the National Diet in 1947.

The next important step in educational reform was the democratization of educational administration by decentralization. The administrative power of the Ministry of Education, which had been strongly centralized, was significantly reduced by the establishment of boards of education in 1948 and by the increased autonomy of institutions of higher education.

The thorough reform of the school system included the principle of equal opportunity in education. The 6-3-3-4 school system, established by the School Education Law in 1947; the simplification of the school system; and the threeyear extension of compulsory education are worthy of note. In addition, the abolishment of the peers' school for children of the Imperial Family and the aristocracy; the adoption of coeducation; the extension of the compulsory education law to blind and deaf children; part-time schooling for economically handicapped pupils; education by correspondence; equality of state, municipal, and private schools; and the expansion of the scholarship system were important changes in postwar Japan.

Educational content and method—the uniform, memorizing type of education centered on textbooks—were revised. Moral education and Japanese history were excluded during the first stage of occupation and later put under strict scrutiny. It should be mentioned also that state textbooks were supplanted by private editions.

Teacher training is part of the educational reform. The former normal schools were abolished as teacher-training institutions. Today, anyone who finishes a four-year course in a university or col-

lege and acquires a degree is qualified as a teacher. Thus the so-called "open" pol-

icy has been adopted.

Three organizations in particular promote democracy in education. One of them is the PTA, patterned after the United States model and today numbering some 15,000,000 members. The teachers union comes next, composed chiefly of teachers in primary and secondary education. These organizations have the character of labor unions rather than professional societies. There is also the University Professors Association. Finally, there are the student organizations, called "student self-government associations" which exist in many institutions of higher education. These student organizations have been notable for their connections with leftist social and political movements rather than for self-governing activities in student life.

Adult education (called "social education" in Japan) was stressed by the passage of a Social Education Law (1949). It is chiefly for laborers, and young men and women. Emphasis is placed on such educational facilities as public halls, libraries, museums and, recently, various forms of mass communication.

Several important problems need reappraisal. First, the money allocated for this broad educational reform has been inadequate. Lack of economic support has been particularly conspicuous in the new lower secondary schools. Although these schools needed nearly 60 million dollars for their equipment, they started with only about 2 million dollars. As a result, between April, 1948 and June, 1949, it is reported, 177 village mayors were obliged to resign and three committed suicide.

Second, there is the problem of establishing a guiding principle in education to replace the old system. The fundamental law of education lacked vigor. Intellectual training was emphasized and, through this, moral education was expected to develop. But the achievement of the new system has not been very satisfactory. This fault in the new education, together with the moral devastation caused by the war, has accelerated the egocentric and materialistic tendencies of the younger generation. Lack of loyalty and responsibility to their community, as well as loss of interest in the cultural and moral traditions of Japan, typifies the "decadence of youth" so often talked about.

Foreign institutions transplanted to a new climate do not always attain the same success as at home. Is the simple and inelastic 6-3-3-4 system which the Educational Missions recommended adequate to the actual needs of our country, where the social system is so complicated? The system of boards of education so strongly advised by the Missions and, in particular, the local boards of education, with their excessive administrative subdivision, has caused many difficulties.

Frankly speaking, an excellent plan of education was introduced without cautious preparation and deliberation. As a result there arose many unforeseen problems and abuses. For example, the socalled "free" education affords opportunities for easygoing, irresponsible education as well as a politically tinged one-

sided type of education.

Since the end of World War II, Communism has tried to infiltrate the educational field. The teachers association was utilized by its leaders to change a professional organization into a class-conscious, fighting, labor union, often slanted toward some left-wing political ideology. Further, the self-government activities of students were frequently taken advantage of by political extremists, and sometimes became the means of disturbing the orderly life of both community and campus.

Postwar educational reform appears to be perpetuating—along the same basic line—the faults as well as the merits of the educational revolution of the early Meiji.

Japan regained her sovereignty in 1952. The problems raised by educational reform must be solved by Japan herself.

We must not forget the changing conditions during the past twelve years. The world is not the peaceful "one world" that we hoped for at the end of the war, but instead is divided into two worlds opposing each other with arms. Today there is fear that the country may become the battleground for class antagonism and struggle under the influence of Marxism, which has acquired strong support among some of the intellectual and student groups. Indeed, Japan faces grave crises, both international and domestic. We appear to be in a position similar to that of the middle Meiji period, when the direction taken by the educational revolution was being reconsidered. From this standpoint I shall discuss the tasks of education in independent Japan.

In a period of crisis, education should foster a sense of responsibility and duty toward the community as well as the freedom and rights of the individual. Education before and during the war stressed nation and family and neglected the world and the individual. In the new, postwar education attention has been concentrated on the world and the individual, and the significance of nation and family in human society has not been fully understood. The need to emphasize loyalty and love toward the homeland and national community is deeply felt. In my opinion, the realization of a democratic, peaceful welfare state will be promoted not simply by wishing for high ideals but by devotion to the land where those ideals are to be realized.

On the other hand, this loyalty and love should coexist with the world community now being created. This is the most urgent and fundamental task of education in our country at the present time.

A period of crisis calls for clear and vivid ideals, unerring decisions and well-integrated personalities who can act courageously. In our modern society—with its characteristic technology and division of labor, its organization and concentrated power—it is difficult to develop well-integrated, active men of character.

Education should never become the arena for class struggle and political conflicts. Nevertheless, both the party in power and the opposition parties are strongly tempted to exploit education because of its great potentiality. Therefore, the neutral character of education should be emphasized and defended.

With these observations in mind, we come to a study of the solution of the various postwar educational problems. The purpose of the reform is to adjust the guiding principle, the system itself, and its practice in accordance with the domestic situation and with the transformation in international affairs during the past ten years. At the same time, we must firmly maintain the broad and basic lines of educational democratization which is the basis of the postwar reform. Considering that this reform was effected rather hastily under conditions of defeat and occupation, it is natural that this evalution and readjustment should be attempted.

It is especially difficult in times of stress to secure a stable economic basis for education. We must make compulsory education completely free. We must

also endeavor to raise the minimum amount legally guaranteed in the national budget for compulsory education as well as to extend it to upper secondary and, later, to higher education. In this respect, the government has undertaken the task of improving such educational facilities as classrooms and school buildings. Scientific education is also being encouraged. Teachers' salaries should be raised. Furthermore, it is necessary to insure equal educational opportunities for needy students through scholarships, part-time schooling, correspondence courses, and student health and welfare services. Although economic support of education is difficult in a devastated country, the need for such support is urgent.

Administrative reforms in the board of education, which have presented problems from the beginning, have been made. Important among these are the compulsory establishment of boards of education in each city, town, and village; the abolishment of the general election system and the adoption of the appointee system whereby appointments are made by the heads of local governments with consent of the local assembly; reinforcing the advisory and guidance functions of the prefectural boards at the local level, and those of the Ministry of Education on the prefectural level.

Because of the abrogation of the Imperial Rescript on Education, the need for moral education in schools has been felt for a long time, by both parents and teachers. This lack is especially evident in the weakness of the family structure and in religious training. In the autumn of 1958 the Minister of Education formally directed that moral education be included in the curricula of public schools.

It is natural that a program begun in defeat should be revised in the light of ten years of experience. The purpose of the revision was to insure an efficient education in harmony with the needs of the nation and society. The chief objectives were thoroughness of moral education, extension of basic general knowledge, and advancement of education in science and technology.

In the advancement of scientific and technological education in the elementary and the lower secondary schools, the curriculum content of arithmetic, mathematics, science and related subjects should be improved, especially in the lower secondary schools. Instruction in mathematics and science should be increased and the teaching of science should be strengthened by establishing new technical courses.

In the lower secondary schools, compulsory education is in its final stage, and in the third year special courses should be given according to the individual student's future.

Since education is, in essence, the development of human personality, the problems of teachers should be the central subject of educational reform.

The postwar changes aimed at making the teacher a cultured, professional man, qualified to teach after graduation from a four-year university course. Assessing the ten years of experience has proved that this formal democratic system has not always assured the scholastic achievements of teachers. Furthermore, it has overlooked the quality of character in the teacher. It has invited an oversupply of teacher applicants. The scholastic grades of university teacher-applicants are, generally speaking, lower than those of applicants in other fields. The causes, I believe, are that teachers' salaries are low; that respect for, and social prestige of, teachers have decreased; and that teachers themselves have less pride and sense of calling in their profession. As for

the last, there seems to be some subtle connection with the teachers' organization which tinges their program with Marxism and persistently impels them to emphasize their status as workers.

The Central Council for Education made a study of the teacher-training program and submitted a report to the Minister of Education in 1958. It is expected that the government will change this program in the near future. The report states, "For the purpose of fostering the high quality required of teachers as a specialized profession, the principle will definitely be maintained that the training of teachers should be carried on by the university. Simultaneously, the defects observed in the open policy will promptly be improved, and by projecting a more systematic framework for the training of teachers a high standard of education must then be established."

Along with reform of teacher training and the system of granting licenses to teachers, and the planned training and appropriate assignment of teachers, the most urgent issue in current Japanese education is the Teachers' Union. Consisting mainly of the teachers in the compulsory education schools, the Union is, with its present membership of 500,000, the outstanding representative of teachers in Japan. The Union accepts the class-struggle theory, and belongs to the left-wing trade union federation and is itself a left-wing power.

With such a background, the Japan Teachers' Union, in cooperation with the opposition party, has come to violent battle with the Conservative party, the government, and the Ministry of Educa-

tion. It is the opinion of the Union that the Conservative party, its government, and the Ministry of Education are reactionary and that they intend to return education to its prewar pattern, to weaken the teacher organization or, at least, to place it under stricter supervision. Education, which must be neutral, is therefore the subject of an over-all struggle; teachers, students and, in some cases, parents are now being used as the tools of power strife. The merit rating of teachers is now the object of a violent nationwide political and social struggle. The major cause of this strife is, I believe, attributable to the political character of the Union itself, in conflict with the reactionary tendencies of government policies, rather than to the system

At any rate, people in general-including the well-intentioned intellectuals, students, parents, and a majority of the teachers-strongly criticize the strife and the attitude of the Union, which disregards the fact that it is sacrificing both education and the school children. At the same time the Union requests the authorities to moderate their attitude and policy toward the Union. Together with the majority of the Japanese people, I earnestly hope that our school teachers will return to their ideals as teachers of youth rather than as class-conscious workers, and that instead of making the school and education the cause of political strife both government and teachers will revive their wisdom and courage to defend this sphere for the development of human character, thereby restoring Japanese education to its normal status.

Challenges in International Education*

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RECENTLY I visited for nine months the new and emerging nations of Africa, the Middle East, and Asia. It is difficult to realize that twenty-five of these nations have won their independence since World War II, with nearly 700 million persons involved—or one person in every four in the world.

Sometimes these nations are classified as underdeveloped countries, but anyone who knows them well realizes that a qualifying statement is needed in describing them. Actually they are more highly developed in some respects than the United States, but they are industrially (or economically) underdeveloped.

This trip was an exciting, distressing, and humbling experience. Exciting because of the people I met, the many fascinating sights I saw, and the bursts of energy and creativity which I witnessed. Distressing because of the many complex problems one encounters and the precarious nature of international affairs which impresses one everywhere he travels. Humbling because of the enormous jobs which face anyone who wants to be helpful abroad and because of the staggering tasks which confront anyone at home who is interested in promoting effective education for living in the international community of our day.

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I returned from my travels proud of many aspects of our national life, from the American drug store to the American school system. Yet I am more than ever aware that we too are an underdeveloped nation in some respects. We are underdeveloped in our knowledge of other lands and peoples, in our inability to communicate with the peoples of the world in their languages, in our adolescent desire to be liked by everyone and at all times, in our ability to interpret our beliefs and our way of life simply, boldly, and dramatically around the globe, and in our lack of realization that if we want others to be like us, we must be ready and willing to be like them at least in some respects. A realization of these facts made my journey a humbling experience.

These months of traveling abroad also strengthened my awareness of the many challenges which face American educators as we try to prepare ourselves and our pupils to live in the changing, confusing, chaotic world of our day and probably for decades to come. I shall touch briefly on ten of these challenges.

1. To regain and restate the basic philosophy of American education

Throughout the world today there is a passion for education. It is much in evidence everywhere—in the building of schools, in the proportion of national budgets allocated to education, and in the

thousands of adult education classes. This world-wide interest in education is a thrilling aspect of our times, yet the type of education being offered in many of the schools around the world is like that of the seventeenth and eighteenth centuries and by no means adequate for the twentieth century.

Many leaders of education are looking to the United States for guidance in thinking about the aims of education in their lands. They have been attracted to education here because it is for all the children of all the people, because it is practical (being based on the needs of children and society), and because it is

experimental in nature.

At least that was true in the past. Yet, at the most critical period in the history of education around the world, when we could help so many nations to establish educational systems which would be of tremendous value to them, we American educators are in retreat. We are unsure of ourselves, uncertain as to the wisdom of our educational philosophy, and terrified by the attacks on us and our ideas by individuals and pressure groups.

In one of those sudden swings of the pendulum which intermittently plague us as a nation, we are beginning to wonder if the Russians have the best approach to education. And in our eagerness for easy, quick answers to our dilemma, we have begun to think that science and

mathematics will save us.

We surely need these two subjects, but if the world needs any one thing more than another it is the application of the findings of the social sciences to human and international relations. Our zeal to bridge the gaps in our curricula should not cause us to forget the importance of the social sciences, along with science, mathematics, and languages.

Yes, we need to clarify the goals of American education and to articulate our findings abroad simply, boldly, and dramatically. We should be proud of the basic philosophy of American education and realize that much of the philosophy which was developed here when we were a relatively new nation, struggling to achieve national unity, is exportable to other new nations today, even though the structure and methods of American education probably should not be copied elsewhere.

2. To develop a world-centered educa-

For a long while education in the United States has been Europe-centered. We have studied European history, literature and languages, and sometimes art and music—when they were not considered "frills" by local school boards. In the past such an education was understandable. Our heritage was primarily European. Our economic ties were largely with Europe, the political center of the world.

But today we live in a vastly bigger world, including Latin America, the Middle East, Africa, and Asia. The political center is moving from Europe; the world rather than just Europe is our home today.

To be intelligent citizens and effective human beings we need to learn as much as we can about the many areas of our contemporary international community. Only then will we gain understanding and appreciation of other groups of human beings around the globe. Drastic changes must be made in our curricula—in literature, languages, the social studies, art and music, and other fields—before we can acquire this learning.

To develop such a world-centered education will also demand some frame of

reference for our study of the international community. This background will not be developed quickly, but I would like to suggest a few points which might be included in it. If we are to live in the world today and tomorrow we need to realize, for example, that most of the world's people live in Asia, are nonwhite, are farmers and fishermen, live in villages, are non-Christians, are abysmally poor and therefore ill-fed, ill-housed, illclothed, illiterate, and ill. Most of the world's people also live under forms of government and economy which are different from ours, and most of their governments are working together in the United Nations and its agencies.

These are fundamental facts which we need to know. If we really knew them and acted upon them, American education and American international relations would be altered radically—and for

the better.

3. To develop a philosophy of teaching about the world

I have already said that one strength of American education at its best is that it is practical. Yet, like every other quality, this can be two-edged. The danger of the practical approach is that people tend to find some simple gadget, interesting activity, or pet project and to rely upon it without serious thought as to its real purpose.

We invite a student from abroad to speak in an Assembly, we sing a few songs from other parts of the world, or we build igloos, adobe houses, and windmills and think that we have promoted international understanding. Maybe we

have; maybe we haven't.

It is high time that we gave serious thought to the philosophy of education for international understanding. We

need, for example, to wrestle with such questions as these:

Should we develop a single standard by which to study all countries, or should we use one standard for our friends in the NATO nations and another for Russia and China and whatever other nations are considered "enemies" at the moment?

How early should we begin to expose children to the problems of the world and in what ways? Should we reserve the exposé of political alliances and intrigues, religious and racial hatreds, and abysmal and shocking poverty for secondary school pupils or include them at the elementary school level?

What is the difference between education and propaganda in education for international understanding?

To what extent is interest in world affairs an escape from the baffling problems of our local communities and our nation? How can we integrate the study of local and national problems with world problems?

To what extent must our educational work abroad be dictated by official foreign policy? To put it more bluntly, must educational work abroad be a subtle form of imperialism?

Too little attention has been given to such questions, for answering them is much more difficult than working on methods and resources for international understanding. Yet these are basic questions which should be examined, and at least tentative solutions regarding them should be drawn soon.

4. To develop a continuous, cumulative curriculum about the world

In recent times three concepts of the role of American schools have stressed: the child-centered school, the community-centered school, and American society-centered school. Each of these has contributed to the development of our curriculum, but to them we

now need to add a fourth—the concept of the world-centered school.

Today's events challenge us to develop a curriculum from nursery school through adult education which will help each American to live in the international community which is painfully and slowly emerging.

To develop such a curriculum we may need to think in terms of broad themes which ought to permeate every subject field and every activity under the guidance of schools. Because of my own interest in such themes, I mention ten which might be considered in a continuous, cumulative curriculum. They are:

The Earth as the Home of Man Two and a Half Billion Neighbors Ways of Living Around the World A. World of Fun and Beauty An Interdependent World Many Countries and Cultures Poverty and Plenty Many Forms of Government Many Religions Conflict and Cooperation.¹

These are merely one man's suggestions regarding what might be considered in building a curriculum about the world. We need many others from individuals and groups. Furthermore, we need to encourage the thinking of many subjectmatter groups, especially at the secondary school level, about how their fields can contribute to school-wide studies of the world.²

¹Leonard S. Kenworthy, Introducing Children to the World: In Elementary and Junior High Schools (New York, Harper, 1956), 268

Pp.

² The most recent and most ambitious undertaking of this kind was a special issue of the Bulletin of the National Association of Secondary-School Principals (December, 1956) on "International Understanding Through the Secondary School Curriculum." This was prepared by the Commission on International Understanding of the Association for Supervision and Curriculum Development.

5. To examine critically the methods for promoting education for life in the international community

We certainly know enough about the learning process today to realize that no one approach will be effective in arousing the interest of all boys and girls in the world. We know that a variety of approaches is needed to arouse interest on the part of different individuals, and that several methods can reinforce learning. We also know that other lands must be viewed from many angles—through their music and art, their history and contemporary affairs, their architecture and literature, and in other ways.

The methods we can use are far more numerous and richer than we sometimes realize. There are thousands of resource persons upon whom we can draw. There are scores of valuable reference books, countless hobby interests to utilize. There are hundreds of films and filmstrips, charts, maps, globes, radio and television programs, and other audiovisual resources which can be helpful.

We need now to concentrate on discovering which of these methods seem to be most effective with certain age groups, with certain aims in view, and with certain types of children.

Without any statistical evidence to support his contention, the writer would like to suggest that the most promising practice today in international education is school affiliations.³ These are group friendships, fostered over a period of years by a wide variety of methods and involving teachers and parents as well as children. I look forward to the day when every pupil in American schools will be

³ For further information write to the School Affiliation Service, American Friends Service Committee, ²⁰ South ¹²th Street, Philadelphia 7, Pa.

involved in at least four such affiliations during his academic years, each affiliation being in a different part of the world.

6. To develop patterns for studying countries and cultures

Because the job of introducing ourselves and our pupils to the world is so vast and complex, we need to develop useful patterns for studying countries and cultures. Development of these patterns is even more important when one realizes how many new nations will join the international community in the next few years, long after tomorrow's citizens have had a chance to study about them in schools. Perhaps development of the skill of looking at a locality is more important as an aim of a school than the acquision of knowledge about places, since the knowledge will change and new groups of human beings will be formed in the future.

There are dangers in suggesting such patterns, for they can be misinterpreted and become static rather than dynamic. Nevertheless, most teachers need some help in how to study a country and its culture. Therefore this writer will risk suggesting such a pattern.

As we study any community, any country, or any culture, we need to keep a few factors in mind. In most instances it is best to begin with the geographic base—the location, lay of the land, climate, and resources.

Then we need to look at the people of a given area and their ways of living.

Next comes an understanding of their values, goals, and ideals. This is difficult, but it is central to an understanding of any community, any country, or any culture.

Growing out of these values are the institutions of a people. There are at

least five factors in almost every group the family, religion, government, education, and the economy of the people. More and more the mass media too need to be examined.

Finally, we need to look at the creative expressions of any group of people. Their future is likely to depend upon these creative talents, ranging from the arts to social organization.

All of these aspects of life need to be examined in regard to the past, present, and future of a group, as well as its relationships with other communities, countries, and cultures.

7. To develop adequate resources for studies of the world

If we are to do an effective job of teaching about the world, we must increase and improve the resources for such studies. A wealth of material is now available, but there are glaring omissions in our printed publications and audio-visual materials. For example, thirteen and a half years after the establishment of the United Nations there is still no adequate treatment of it for elementary school children. Neither is there any simple account of village life in various parts of the world, despite the fact that most of the world live in villages.

There are whole areas of the world about which there is little material or very little adequate material. This is especially true of Africa and Southeast Asia. Then there are areas of the world about which our information is out of date. This criticism applies primarily to Latin America. A great deal was printed and filmed in the days of the Good Neighbor Policy, but precious little has been produced since that time.

A crying need in this whole field of international education is a curriculum center on world affairs for teachers. It

should be run by a teachers college, university, or private organization rather than by an agency of the government, and should be assisted by well-qualified, creative teachers, and by writers, publishers, and competent organizations in the preparation of a wealth and variety of accurate, objective, and yet interesting materials.

8. To develop effective means of evaluating growth in international understanding

Evaluation is always a difficult process, especially in the realms of attitudes and actions in the field of international education. It is probably the weakest link in the chain of challenges in this discussion. We must clarify our aims before we can make much progress in evaluation, but in the meantime experimentation in this broad field should be encouraged. Tests of information are available, but they quickly become obsolete. Up-to-date ones are relatively easy to devise, however.

International understanding is basically the development of attitudes, skills, and broad concepts leading to enlightened behavior. These aspects of life are difficult to measure, hence precious little has been done in this important yet complicated field.

Here and there individuals and systems are experimenting. An example is the series of tests on Asia given in conjunction with the state-wide television series in Connecticut.

Evaluation in international education is a wide-open field for classroom teachers, school systems, and doctoral candidates.⁴

9. To educate teachers with world horizons

In international education as in every other type, the teacher is the keystone of the arch. Such education must, therefore, begin with the training of world-minded teachers. What we need is not ideal internationalists, but people who are growing, people who are stretching their horizons, people who are becoming

integrated individuals
experts in democratic human relations
rooted in their own country and culture
appreciative of other countries and cultures
informed about the contemporary world
scene

informed participants in efforts to strengthen the United Nations and achieve world

conversant with methods and materials for creating world-minded children and youth

undergirded by a faith or philosophy of life which makes all this possible.⁵

If we can develop enough such persons, future historians may be able to write that the teachers of the United States did their part in helping to turn the world from international suicide to international sanity, from world chaos to world community.

There are scores of ways in which each of us can grow in the direction of world-mindedness, but space here permits mention of only three.

1. As a start, read at least one good book about world affairs.⁶

⁵ Leonard S. Kenworthy, World Horizons for Teachers (New York: Bureau of Publications, Teachers College, Columbia University,

1952).
6 Four books in this field which I recommend highly are; Chester Bowles, *Ideas*, *People and Peace* (Harper, 1958); Norman Cousins, *Who Speaks for Man?* (Macmillan, 1953); Vera Dean, *The Nature of the Non-Western World* (Mentor, 1957); and Louis Fischer, *This Is Our World* (Harper, 1956).

⁴ See Margaret Cormack, "How Can Teachers Evaluate Growth in International Understanding?" Bulletin of the National Association of Secondary-School Principals, December, 1956.

2. Subscribe to a magazine which will help you to keep abreast of current world affairs, such as *Focus*, the Foreign Policy *Headline Books*, and *UNESCO Courier*.

3. Affiliate with some organization which is trying to improve world understanding, whether it be the American Association for the United Nations, the Foreign Policy Association, or some kindred group.

10. To win public support for programs in our schools about the world

Many teachers are already carrying on programs about the world in their classes. Still more would do so if they felt easy and secure in handling controversial issues in a realistic and relatively objective

way.

There are plenty of people and a few blatantly vocal organizations ready to pounce upon teachers and school systems if they go very far in implementing the suggestions set forth in this discussion. We should encourage individuals and organizations in our communities to demand more and better teaching about the world. Too often such persons and groups wait until there is trouble to come to the rescue of world-minded teachers. They need to shift from a negative, defensive approach to a more positive one. The public will support them in most cases, as has been shown in the election of pro-UNESCO members to the Los Angeles School board recently after years of anti-UNESCO and anti-UN propaganda in that city.

A little more than a hundred years ago the American people caught a vision of a public school system to prepare people for life in a democratic society. The is-

sues involved were argued in a debate lasting for years, but a decision was finally made and a system of free, compulsory education was instituted of which we can be very proud, despite its weaknesses.

Perhaps we are on the threshold of another such vision and another such debate over the importance of preparing young people to live in the international community of our day. In this debate it is important to bear in mind and convince other people that education for international understanding and education for national loyalty are complementary rather than contradictory terms; that education about the world is not intended to supplant but to supplement education about the United States.

Our self-interest demands such an education even if our idealism is not strong enough to convince us that it is necessary.

CONCLUSION

In American schools today too many children are getting a nineteenth century education for a twentieth century world. It is time that our schools developed programs which will prepare pupils to live effectively during the next fifty years. It is time that we gave our pupils a cockpit view of the world as well as a porthole view of their surrounding communities. It is time that we teachers took off our cultural blinders and gained a planetary perspective.

Yes, it is a great as well as a ghastly time to be a teacher. Ghastly because of the possibilities of mankind's suicide; great because of what we can do to promote man's survival and the development of new kinds of human beings able to live in a world community.

The Road to UNESCO*

DAVID G. SCANLON

PROFESSOR OF EDUCATION, TEACHERS COLLEGE

I N April 1919 a group of women met in Paris with the representatives of the Allied governments who were writing the Covenant of the League of Nations. These women, representing the International Council of Women and the Suffragist Conference of the Allied countries and the United States, had been granted a half-hour in which to present a memorandum that included, among other proposals, stressing the necessity of creating an international office of education within the League. Among the women was Fannie Fern Andrews, whose own efforts in the field of international education had become legendary and who had come closer than any other individual1 to establishing an international office

*Dr. Scanlon is Coordinator of Teachers College, Columbia, International Cooperation Administration Contracts.

¹ See David G. Scanlon, "Pioneers of International Education, 1817-1914," Teachers College Record, Vol. 60, No. 4, January 1959, pp. 200-10.

Other publications of interest and value to the student of international education would include I. L. Kandel's classic, Intellectual Cooperation: National and International (New York: Teachers College, Columbia University, 1944); Pedro Rosello, Forerunners of the International Bureau of Education (London: Evans Brothers, 1944); Waldo G. Leland, "The Background and Antecedents of UNESCO," American Philosophical Society, Proceedings, Vol. XC, No. 4 (September 1946); William G. Carr, Only by Understanding (New York: Foreign Policy Association, Headline Series, No. 52, May-June 1945); Ruth E. McMurry and Muna Lee, The Cultural Approach, An-

of education in the pre-World War I era.

That section of the memorandum concerned with education consisted of three basic concepts. In the first place it was argued that the League should be thought of as an agency of civilization as well as peace. If this were done, then education would have to play a major role in the post-war period. Its role as the agent of civilization could best be played through an international office. Secondly, it was pointed out that in order for the League to survive and become a force for peace, the youth of the world would have to be educated to its goals. In the minds of the women it would be necessary to build loyalty to and faith in the League in children throughout the world. While many countries would encourage their schools to teach about the League of Nations, an international office could serve as a clearing house and as a center for materials concerning the League. The final statement in the memorandum emphasized that mankind could be liberated only if all people had access to democratic education.

To support these needs the committee of women proposed Article 22 of the

other Way in International Relations (Chapel Hill: University of North Carolina Press, 1947); Howard E. Wilson (ed.), "National Programs," International Conciliation, No. 462 (June 1950); and "Education as an Implement of International Cooperation," International Conciliation, No. 415 (November 1945).

League Covenant, which would have included an international bureau of education as part of the League.

The women were well received by the statesmen, and yet Paris was filled with groups urging the writers of the Covenant to include their particular area of interest in the League. President Woodrow Wilson, after pointing out this fact to the committee, thanked the women for their presentation, but education was not mentioned in the Covenant.

During the next two years problems concerning education were constantly coming before the League and, for this reason, the Council considered a proposal made by Leon Bourgeois that a committee of educators and scientists be appointed to consider "international intellectual cooperation and education." The Council agreed upon a resolution which would have created a commission to study means by which intellectual cooperation and education could be assisted through an international bureau of education. The resolution was presented before the Committee on Humanitarian Questions of the League and touched off a controversy that ended any hopes of an international bureau under the sponsorship of the League. The Jugoslav delegate, M. Avramovitch, objected to the word "education" in the resolution. Other delegates as well saw inclusion of the word "education" as a possible danger to national interests and feared that an international educational organization would have powers to intercede in the internal affairs of a country. Many of the newer nations, jealous of their new sovereignty, were fearful that this freedom might be infringed. The chairman, with the agreement of the Committee, eliminated the word "education." For those who were interested in the international bureau there was still hope that "education" could be introduced before the Assembly.

The proposal for a Committee on Intellectual Cooperation was presented before the Assembly by Gilbert Murray, Professor of Greek at Oxford University. Indicating that the word "education" had been dropped from the original resolution, Professor Murray said that the League would be interested in education for peace, but not in general education.

The delegate from Haiti, M. Danté Bellegarde, made a final attempt to present a resolution which would include general education with intellectual cooperation. He pointed out that education was becoming a scientific consideration and that if the League hoped to achieve success in intellectual cooperation, it could not neglect education, which played such an important role in influencing the mind. Unfortunately, Bellegarde was unable to rally other delegates to his position; and as a single delegate could defeat Assembly acts of this type, he finally agreed to the resolution which established simply a Commission on Intellectual Cooperation.

F. P. Walters, formerly Secretary-General of the League of Nations, in discussing the Committee on Intellectual Cooperation wrote:

Created amidst scepticism, hindered in its natural growth by lack of funds, it was never able to perform more than a fraction of the vast services which, with better fortune and better management, it might have rendered to the world.²

The Committee was expected to serve three purposes. The influential French Federation of Intellectual Workers an-

² F. P. Walters, A History of the League of Nations (London: Oxford University Press, 1952), p. 190.

ticipated that it would, first of all, play as important a role for the intellectuals as the International Labor Office was to perform for industrial workers. The second purpose was to build up contacts between intellectuals. As a result of the war, exchanges of information between scientists, artists, and teachers had come to a standstill. The opportunity to revive and expand what had been started in the prewar period would depend upon the support of a powerful organization such as the League. Henri Lafontaine and Paul Otlet from Belgium had founded the Union of International Associations for the purpose of bringing together intellectuals and publishing the results of international conferences. Two hundred organizations had joined the Union, and both Lafontaine and Otlet hoped to establish an international university. The Belgian Government supported the two men in their insistence upon development of this use of intellectual cooperation and, as this view was supported by many other governments, it became a major objective of the Committee.

The third objective was to make maximum use of the intellectuals of the world in the League's concern with peace. It was argued that history had been made by military leaders and politicians. It was now time for the intellectuals to exert their influence for the maintenance

of world peace.

The original Committee in 1922 consisted of twelve members and represented the leading scholars of the world. Madame Curie, Gilbert Murray, Albert Einstein, and Jagadis Bose were members of this Committee, with Henri Bergson serving as president. Despite the overwhelming needs, the first proposal made by the Committee appears very modest an investigation of the conditions of intellectual workers in Central and Eastern

Europe; studies of the possibility of expanding the international exchange of scientific publications; creation of an international fund for scientific research; establishment of a center for university information to encourage the exchange of professors and students; and establishment of international copyright and scientific proprietary right agreements.

The meager budget of five thousand pounds allowed by the Committee was approved only after endless debate and controversy. Such a limited budget would permit only a meeting of one week per year. Its staff was one assigned member of the League Secretariat. In 1924, when it became apparent that the Assembly would never give the Committee the financial support it badly needed, Bergson appealed directly to members of the League for funds. The French Government agreed to support an Institute of Intellectual Cooperation in Paris. The control of the Institute remained in the hands of the League and, as other governments began to support the Institute, there was an opportunity to expand the activities of the Committee. The Institute served as a clearing house and secretariat for a large number of international organizations, among them the International Museum Office, University Information Center, Educational Documentation Center, Folk Arts, and History of Art. The Institute published periodical bulletins, such as Cooperation Intellectuelle, Mouseion, and Index Translationum.

The Italian Government offered to establish in 1928 an International Cinematographic Institute which would remain under the control of the Committee. The offer was accepted and, until it was closed by Mussolini in 1937, the Institute encouraged the production, distribution, and exchange of educational films and

served as a center of information on educational film making.

Although the Committee worked under severe handicaps, it was able to conduct many important activities. The work of the Institute in supporting international conferences has become an important area of work for UNESCO. An attempt was made to reform textbooks and eliminate hatred of neighboring nations. A mission was sent to China to help in educational reconstruction. Each country was asked to form a National Committee of Intellectual Cooperation, and by 1939 forty-four supporting groups had been organized. National groups served as important links between the International Committee and intellectual groups within various countries. In many ways the present national committees for UNESCO perform a similar function.

The Committee undertook many important projects, but it failed to unite intellectuals against excessive nationalism and national ambitions. It was not difficult to bring about common agreement among doctors, but attempts to create similar agreement among teachers and scholars were not successful. This is not surprising in view of the limited financial and moral support given to the Committee by the League.

Henri Bonnet, who served as the able director of the Institute for many years, suggested in 1941 four points which would have to be considered for intellectual cooperation in the future. First, the intellectual division of any world agency would have to be much stronger than that of former agencies, and it would need adequate financial support to become an influential part of a future world agency. Second, the intellectual group would have to be concerned with all cultural aspects of intellectual experience.

"If there is one thing indivisible, it is the unity of spiritual life." The third point Bonnet emphasized was the need to see educational problems as part of the general cultural problems. Finally, he suggested that the division should have a great degree of freedom and yet be an integral part of the world agency.

THE INTERNATIONAL BUREAU OF EDUCATION

Discouraged by the apathy of the League and yet determined to establish an organization that could act as a clearing house for educational information, the International Bureau was established as a private organization in December, 1925, at Geneva. The organizing committee had the support of many outstanding educators and international figures, including the Swiss psychologist Edouard Claparède and the Director of the International Labor Office.

For three years the Bureau attempted to carry on its work with annual contributions by individual and corporate members. In order to expand its activities, a new constitution was adopted which made the Bureau an official organization. Its Council and Executive Committee were placed under the control of its members, the great majority of whom were Ministers of Education of governments. From its earliest inception the Swiss Government was its main support. By 1938 there were only seventeen members, and most of the governments represented were small powers. United States did not join the Bureau until July, 1958, although it had cooperated unofficially since the 1930's.

The Bureau, despite severe handicaps,

³ Henri Bonnet, "Intellectual Cooperation," in *Intellectual Cooperation in World Organization* (Washington, D. C.: American Council on Public Affairs, 1942), p. 209.

was able to make a major contribution to education through its conferences and publications. It has published studies on the field of comparative education, the organization of education in various ministries of education, professional training of teachers, use of school libraries, and the salaries of teachers in various countries. A central theme on problems of education was selected each year for the Bureau's annual meeting, which was well attended by members and representatives from non-member governments.4

In 1931 the Bureau asked for annual reports from ministries of education. These reports were incorporated in the Bureau's yearbook, which is now published jointly with UNESCO. The Bureau also started publication of a quarterly bulletin which includes information on education throughout the world and reviews educational works.

When the Bureau moved to the Palais Wilson, the former office of the Secretariat of the League, there was room to provide a permanent exhibition of instructional materials from various countries. The exhibit has continued to be of great interest to visiting educators.

GOVERNMENTAL CULTURAL RELATIONS PROGRAMS

In addition to the activities of international agencies, governments in the period between World Wars I and II engaged in cultural relations programs. France and Germany, among the earliest countries to recognize the desirability of a program that would extend their respective cultures beyond the geographical limitations of Europe, can trace their programs to the nineteenth century.

France aided missionary efforts in Asia and the Middle East, and by helping to build schools and hospitals furthered French culture in these areas. Germany concentrated on the various schools established by German communities throughout the world. While these were originally supported by private groups, they soon received subsidies from the government.

France expanded her efforts in Europe and the western hemisphere by helping French schools and French institutes. A program of cultural relations overseas was included in the Ministry of Foreign Affairs and consisted of four divisions: universities and schools, art and libraries. travel and sports, and an area which supported private cultural agencies. Included in the latter were such agencies as the Alliance Française, which was created to encourage the study of French. On the eve of World War II approximately 20 per cent of the budget of the Foreign Affairs Office was allocated for the cultural relations program.

With the establishment of the British Council for Relations with Other Countries as an agency to interpret Britain abroad, the United Kingdom in 1934 began its program. It was hoped that financial support would come from private groups; when this did not happen, the Foreign Office supported the Council.

In 1938 the United States created an Interdepartmental Committee on Scientific and Cultural Cooperation with the other American Republics and a Division of Cultural Relations. The United States was the last of the major powers to start such a program, although private agencies here had been engaged in cultural activities for decades.

While governmental cultural programs have varied depending upon the country concerned, all countries viewed their pro-

⁴ Since 1947 the annual conference has been sponsored jointly by the International Bureau of Education and UNESCO.

grams as important aspects of the foreign policy. Although there might be a theoretical statement on the value of reciprocal cultural relations and some exchanges between nationals might take place, the basic purpose was (and remains today) to explain their culture to other people. It is perhaps for this reason that governments have supported private organizations that are not viewed as simply propaganda agencies of national powers. The need for intellectual and educational cooperation has been recognized by many private groups and individuals-six hundred various organizations were operating in the United States alone in 1937.5

CONFERENCE OF ALLIED MINISTERS OF EDUCATION

The beginning of World War II brought to a virtual standstill all efforts in international education and cultural cooperation. And yet, inadvertently it provided an opportunity for educational leaders to meet together and plan for the postwar period.

In England during World War II there were many governments in exile. Belgium, Czechoslovakia, Greece, Holland, Luxembourg, Norway, Poland, Jugoslavia, and France had established free governments to continue the war against Nazi Germany. Under the leadership of Mr. R. A. Butler, English Minister, a conference of Allied Ministers of Education was called in October 1942 to discuss problems of education of concern to the Allied governments during the war and in the postwar period. The problems in 1942 appeared overwhelming. Every government represented at the confer-

⁵ See The Study of International Relations in the United States, by Dr. Edith E. Ware (New York: Columbia University Press, 1938).

ence could report the destruction of cru-

cial areas of education in its country.

In Belgium the University of Louvain had been burned, leaving only 15,000 volumes of a library of 900,000. Professors from the University of Ghent and the rector of the University of Louvain had been arrested for refusing to give the Nazi occupiers lists of students that would have been used for conscription purposes. Thousands of books had been removed from the libraries throughout Belgium. Textbooks had undergone strict censorship and hundreds had been confiscated.

In France three universities had been closed. Professors and teachers who were considered liberal had been deported, and the Nazi government carried out a policy of mass deportation of educators to Germany. In the coastal cities many schools had been destroyed.

Schools for 100,000 children in Greece had been destroyed, and in those areas occupied by Bulgaria, only Bulgarian schools were permitted. The University of Athens had been closed, its faculty dismissed, deported, or imprisoned.

Teachers in Luxembourg were forced to take Nazi re-education courses. The entire school system was remodeled by the occupiers after that of Germany.

No other country suffered as much during its occupation as did Poland. Those secondary schools not destroyed were requisitioned for the German army. All books concerned in the slightest with Polish culture were destroyed. Elementary education consisted of arithmetic, natural history, and manual training. It was estimated in 1945 that, "to provide only two copies of each book per class it will be necessary to produce 1,000,000 text books.6"

In Jugoslavia every effort was made to destroy the common culture of the

⁶ Allied Plan for Education, (London: His Majesty's Stationery Office, 1945), p. 13.

country and revive ancient hostilities among various ethnic groups.

To meet what must have appeared to many as insurmountable problems, the Conference created a series of commissions and committees. First to be established was the Books and Periodicals Commission. Funds were provided to buy British books and periodicals for the universities of Allied countries. The Inter-Allied Book Center was opened in 1944 to house books that had been purchased and those that had been collected in various drives. Other countries, including the United States, also conducted drives for books that were sent to Allied countries through the Book Center. By this means a collection of scholarly works for universities was assured the moment the war was ended.

While books were of great concern, there was also the problem of restoring the laboratories in universities and schools that had been destroyed. To meet this need the Science Commission was formed in July, 1943. Assuming that a percentage of existing institutions would be destroyed before the cessation of the war, the Commission worked out twenty-six detailed inventories—each consisting of thousands of items—listing the laboratory needs of the various sciences. Countries able to pay for equipment were then in a Position to contact British or American suppliers for their orders. By this method the Conference would also have an estimate of the cost of rebuilding laboratories in countries which could not afford to purchase the equipment, and efforts would be made to assist these countries.

The Basic Scholastic Equipment Commission was established in May, 1944, to estimate the material needs of primary and secondary education during the first six months of liberation. Estimates were based upon a "standard unit" of twenty-

five children. It was hoped by the Conference that the educational material might be used during the period of military control by the Allies, but the rapid conclusion of war made this impossible. Governments were urged by the Conference to prepare inventories of needs not only for the six-month period but also for an additional year.

Conference members realized that the war and the attempts at Nazi indoctrination would create problems that could best be solved by all Allied governments working cooperatively. The Commission on Special Educational Problems in Liberated Countries was created for this purpose. It was concerned with such problems as methods of working with the vast army of homeless children, and techniques for de-Nazification of the schools.

Also established were the Audio-Visual Commission; the Commission on Cultural Conventions, which was concerned for the most part with cultural exchanges in the postwar period; the Commission for the Protection and Restitution of Cultural Material; and, as a subdivision of the Books and Periodicals Commission, the History Committee, which has as its purpose the writing of objective textbooks.

From its original meeting the Conference was interested in establishing an organization that would include many more members than the original Allied Ministers.⁷ In October, 1943, govern-

⁷ In addition to governments, private organizations were developing plans for an international office of education. A joint commission of The London International Assembly, an unofficial group of people from the United Nations, and the Council of Education in World Citizenship, made up of representatives appointed by British associations of local education authorities and teachers, urged the establishment of an International Organization for Education. In the United States, the Educational

ments which had sent observers to the Conference were invited to become members. The United States Government sent official delegates to the ninth meeting of the Conference held in London in April, 1944, and in accepting the invitation indicated it was willing to collaborate with the Allied Ministers Conference and with other United Nations. with the objective of establishing a United Nations Organization for Educational and Cultural Reconstruction. It was believed that in working for the reconstruction of educational and cultural institutions in Europe a foundation could be established for an effective international organization.

At the first open meeting held by the Conference, on April 12, 1944, the United States Delegation presented a resolution calling for a permanent organization. This proposal was discussed and revised, and a tentative constitution was sent to all members and associated nations of the United Nations.

Additional meetings held by the United States representatives and the Allied Ministers of Education had settled most differences in regard to the proposed organization. Secretary of State Edward R. Stettinius announced at the San Francisco Conference that there was a proposal on the agenda for educational and cultural cooperation to be developed in the Economic and Social Council. Some members objected to the inclusion of the word "educational," and for a time there was fear that the same errors which plagued the League of Nations would be repeated in the United Nations. Fortunately agreement was reached and

Policies Commission proposed the establishment of an international agency for education in its publication Education and the People's Peace (Washington, D. C.: 1943).

"educational" was included in the final proposal. The San Francisco Conference formalized the place of UNESCO within the United Nations. At the Conference for the Establishment of United Nations Educational, Scientific and Cultural Organization, held in London in November, 1945, the constitution of the new organization was drafted and signed.

CONCLUSION

In New Delhi, at the ninth session of the General Conference of UNESCO, it was decided to publish selections from the writings of John Amos Comenius. This new book would mark the third centenary of the publication of Comenius' Opera Didactica Omnia. The announcements of John Comenius, 1592-1670: Selections hail Comenius as the "spiritual ancestor of UNESCO." It is always difficult for any organization to trace back to those events and activities that led to its creation. Certainly in the pages of "The Great Didactic" it is possible to see the great concern for world understanding—a concern that is not dissimilar to that announced by UNESCO at the time of its inception. In the great religious books of the major religions of the world one might also find ample evidence of philosophy that is in harmony with the activities of an organization that has accepted as one of its major beliefs, "That since wars begin in the minds of men, it is in the minds of men that the defenses of peace must be constructed."

It is also possible to find in the plans and writings of those men and women who were attempting before World War I to establish an international office of education, many of those activities carried on by UNESCO today. In 1817 Marc Jullien proposed questions on education that are not dissimilar to the Com-

pulsory Education series published by UNESCO. Molkenboer urged in 1873 that textbooks be written that would be free of prejudice and hate. Peeters' *Minerva* and LeBonnois' *Le Courrier* were forerunners of educational journals now published by UNESCO.

Despite these forerunners, UNESCO has as its immediate roots the Commit-

tee of Intellectual Cooperation, the International Bureau, the numerous cultural programs of various countries, and the many private organizations interested in international understanding. For, as limited as their activities appear today, they developed techniques and procedures that proved invaluable to those responsible for the creation of UNESCO.

Donald G. Tewksbury, 1894-1958

ONALD TEWKSBURY belonged to Teachers College for more than thirty years as student, teacher, administrator, and counselor to students from other lands. We knew him well and we loved him. A mere recital of his professional work could not possibly reveal the spirit that was his and—through him—ours.

He moved quietly among us. Not with the quiet of passivity or indifference or quiescence. But the quiet of dignity, of gentleness, of repose, and of contemplation, wonderfully described by Charles Morgan in *The Fountain* as "the stilling of the soul within the activities of the mind and body so that it might be still as the axis of a revolving wheel is still..."

Donald Tewksbury's imprint was made not primarily through his books, though his history of the founding of American colleges and universities is a classic and he plowed new ground in his volumes on ideologies of the Far East and in his writings on the meaning of international education. His influence is not primarily that of lasting administrative structure or office, though he was genuinely creative and broad-gauged in difficult tasks as dean at Bard College and at New College. His mark is rather where it counts most-in the lives and character of the people whom he served, his students, his advisees, his colleagues, his friends.

To be his colleague was a rewarding privilege. Those of us who long knew him could appreciate and draw freely upon his wisdom, his strength, and his tantalizing humor. The new and young colleague could quickly feel and come to count upon his acceptance and his support, whether it took the form of a ready invitation to collaborate with him on some scholarly writing, or to teach with him, or to feel wonderingly warm in his stanch defense of the newcomer's right to be himself and to write the truth as he saw it. Many times did he generously induct a younger colleague into the mysteries and rewards of scholarship, teaching, and friendship.

Yes, Don Tewksbury moved among us quietly—but with the confident quiet of conviction, of commitment, and of stubborn dedication to liberalism.

He was a man of two worlds seeking to achieve one world. In his teaching at Yenching University in Peking he sought to bring together the best in the cultural heritages of both the East and the West. One of our former colleagues recalls Don's work in China in this way:

In his own courses in education, Don was making a creative use of the experimental studies of William James and Edward Thorndike in the psychology of education. He believed that organized education had a foundational role in the development of the New China, and he labored to develop a theory and practice of education which would be in harmony with scientific procedures and democratic values. Don was able interpreter of the educational thought of John Dewey and he shared Dewey's faith in the possibilities of purposeful activity in the education of the young. With China in profound transition, he emphasized that its

schools should be both an expression and a criticism of their culture.

President J. Leighton Stuart, later American ambassador to China, soon came to rely on Don's judgment and he frequently conferred with him about basic policies for Yenching. The fact that many of these conferences were informal and aside from the regular faculty meetings only increased their significance. Following the death of Mrs. Stuart, Dr. Stuart invited the Tewksburys to live with him in the President's home. On numerous occasions they spent hours discussing the implications of tendencies in Chinese and world movements and thought for the work of the university they both loved. Undoubtedly these conversations deepened Don's resolution to return to Columbia and to complete his program for the doctorate. He realized the revolutionary character of our age, and he wanted to do what he could to prepare himself for its demands.

That he was successful in this preparation for a new world which continued by amazingly wide study throughout his life was evident to all of his colleagues. We learned with and from him.

But even more significant than his influence upon his colleagues was Don's relationship to his students—always the ultimate test of the quality of a teacher.

To unnumbered students from other lands Donald Tewksbury typified Teachers College at its best-humane and humanistic, understanding and sympathetic yet always challenging and probing, gentle and genteel yet provocative with inquiry and then tempered with oblique humor. He knew what it meant to live in a foreign land and he devoted much of his time to helping those who found themselves far from home to feel at home in America and at Teachers College. He was "modestly proud" of the program for students from other lands to which he gave a special style in his teaching, in his counseling, in his office, and in his home as guide, adviser, and friend.

The richest treasure any teacher can have is the living testimony of his students. Donald Tewksbury was rich indeed.

An Arabic-speaking student writes:

As a great teacher, Professor Donald Tewksbury has been an advocate of the noble idea of world peace and the role of education in achieving that peace. This noble idea, with which Tewksbury identified himself, will be transmitted by his disciples through generations.

As an adviser of students from other lands, Professor Donald Tewksbury has been a source of wisdom, understanding, sympathy, and helpfulness which filled every student from countries outside the United States with everlasting admiration for him.

As a friend to some of his students, Professor Donald Tewksbury has been further a model of good human relations which they aspire to follow as long as they live, and to exhibit to next generations in order to follow it.

Professor Donald Tewksbury, My Great Teacher, Wise Adviser, and Kind Friend . . . Your image will always be in my heart and its characteristics will be translated by my tongue. Your voice will always sound in my ear reminding me with what I ought to teach and how to teach. Your noble ideas will always be in my memory to interpret to whom I teach. You will be an inspiration to me in the present and in the future exactly as you have been in the past two years—Live forever in peace, the peace of God [to] which you have devoted your life in the world."

An Australian student recalls what so many others of us could:

Some of my happiest hours as a student were when Don and I went to the Chinese restaurant to eat together and there sat back and talked for hours over personality-culture and world affairs. At those times he was a wonderfully successful professor, for my mind grew under the stimulation of his greater wisdom and deeper understanding. He was so agile and lithe intellectually and his viewpoint was so well informed on almost every topic and so expansive that he

continually challenged dormant powers in my mind. But it was as my wife and I went into his home and as the relation of teacher and pupil gradually changed so that we became close in friendship that even richer and more enduring learning took place and we found our values and general philosophy were slowly changing and growing. This friendship-taking deepened our attachment to your country and made our experience at Columbia have its most enduring effects.

An American who was his student and who was taught to carry on his work speaks for *all* his students as follows:

We who have been students of Donald Tewksbury pay homage to a great teacher and a great man. Dr. Tewksbury practiced the "Confucian Method," giving students one corner of "the square," leaving it to them to find the other three. But he went beyond Confucius' formalistic pedagogy, with subtle rapier thrusts stimulating students to think and feel, each with an honesty that often started in pain but which moved into the kind of security that is based on intellectual and emotional integrity.

Donald Tewksbury helped his students to find the world, and thus themselves—even to find the world within themselves. Those of us who have had the privilege of his integrity, creativity, wit, humor, "complex simplicity," and concern for humanity know that this great teacher of teachers has touched our minds and hearts. We are better teachers and better people for having known him.

And a colleague who knows the East well says:

A warm and affectionate smile appears on the face of every Asian student in this country when his name is mentioned.

Surely, Donald Tewksbury's students of whatever race or religion or nation are living examples of the Biblical psalm: There is no speech nor language where their voice is not heard.

Their line is gone out through all the earth, and their words to the end of the world.

In the last article he wrote, Donald Tewksbury stated his credo.*

Donald Tewksbury's great contribution has been in teaching America its new role. His devotion to international understanding and international cooperation led him into countless hours of endeavor on their behalf—in organization, on committees, through institutions, and above all in personal communication with those of all races, creeds, and nations. Long before most of us were aware of the world's image of the ugly American, Donald Tewksbury was demonstrating exactly the opposite in his work and in his own person. He built in his own life the pleasing image of the graceful, international-minded American of taste, cultivation, and broad human sympathies. So long as we have enough Donald Tewksburys, America's role in the world will be more secure and its leadership will be honored by those who know and respect the qualities of the free man.

Don typified the pleasant Americannot pleasant in any soft, innocuous, ingratiating, or fawning sense, but pleasant in the ancient and honorable meaning of the proverb:

Happy is the man that findeth wisdom, and the man that getteth understanding... Her ways are ways of pleasantness, and all her paths are peace.

R. FREEMAN BUTTS

*See pages 357 to 368 of this issue of THE RECORD.

-REVIEWS

Desegregation; Resistance and Readiness, by Melvin M. Tumin. Princeton University Press, 1958. 270 pp. \$5.00.

There is no doubt of the need for careful, systematic, and relevant research on the problem of desegregation in general and the specific problem of desegregation of public schools. The urgency of this need is increased by the fact that educational and research foundations have apparently decided not to subsidize social science research in this most important area of contemporary social change in American society. Research in desegregation during the Past two or three years has been restricted to that which could be done by individuals with the limited resources, time, and help which could be provided by their own initiative or by the limited funds of a few social agencies or educational institutions. Desegregation; Resistance and Readiness is one of the better examples of this type of limited research on a crucial social problem.

Tumin's study is a serious, systematic, careful research approach to a complex social, political, and psychological problem. The author deserves the respect of his colleagues for his mastery of research methods and techniques and his knowledge of the literature in this field. The fact that this study was conceived as an educational venture to train graduate students in the methods of research in the social sciences and that it also used these students to gather the data in the community studied, thereby providing them with actual research experiences in the field, did not detract from the precision of this research.

Professor Tumin and his students studied a random sample of 287 white males, "members of the labor force in rural and urban areas" of Guilford County, North Carolina. The findings of this study are not surprising. For example, it was found that the white men who were secure in their social and educational status were more likely to accept desegregation, and generally had a more favorable attitude toward Negroes.

This most-ready group . . . contains respondents who have secured some college education; earn upwards of \$6000 a year; are exposed to three or more mass media; have a relatively large percentage of professionals among them; and have significantly more white-collar than blue-collar workers.

Probably the most significant finding in terms of its practical implications and its confirmation of evidence from other studies and sources is that

The majority of the community are neither extreme segregationists nor extreme desegregationists. Between 15 and 20 per cent of the population fall at each of the two poles. The remaining 60–70 per cent have intermediary sets of attitudes and responses.

It is precisely the problem of what happens to or around this middle 60 to 70 per cent of the population that determines the relevance of this type of social science research. If it were a fact that the attitudes of this "intermediary" or "moderate" majority determined the course and direction of the desegregation process in a given community, then Tumin's assumption that the degree of attitudinal readiness for desegregation in the general population made the difference between "the violence at Little Rock and the relative peace and ease of social change at Louisville, St. Louis, Nashville, and Greensboro" would be unquestionably correct. The available evidence indicates that this assumption is not correct. There is no evidence that the differences between Little Rock and Louisville, in terms of the course of the desegregation of their schools, were a function of differences in degree of readiness of the majority of white people for desegregation. In both cities they seemed equally "ready" or "unready." Rather, the significant difference was the fact that in Little Rock the responsible leaders were vacillating and confused and the Governor of Arkansas was willing to exploit the desegregation issue for personal political gain, whereas in Louisville the responsible officials were firm and the Governor of Kentucky made it clear that he would use the power of his office to uphold the Constitution of the United States as interpreted by the United States Supreme

This concrete fact pinpoints the inherent contradiction of the Tumin study and similar studies of this critical social problem. By virtue of his greater sophistication, his familiarity with the literature in this field, on the one hand, and his research training on the other, Professor Tumin seems more sharply caught in this dilemma which confuses many of the social scientists now working on and thinking about the problem of desegregation. He writes, "... there is a wealth of evidence to demonstrate that legal restraints upon discrimination have proved effective, sometimes remarkably so, without any commensurate or prior reduction in prejudice." He also states, "However one evaluates the Little Rock events, there can be little doubt that Faubus played a highly influential role. And the situation would have been drastically different had Faubus not taken his stand and implemented it as he did." These accurate observations are contradicted by the basic thesis of the book that a study of the attitudes of the general population and a determination of the characteristics of those who are ready and those who resist desegregation determine, in any primary sense, whether desegregation occurs smoothly or with prolonged tensions or violence.

The social scientist must make up his mind either to have or to eat his cake of

"attitude studies." He cannot do both and conduct realistic studies of desegregation. In spite of this well-planned and carefully executed study, it is now a fact that a study of "attitudes" toward Negroes or toward desegregation is not relevant to an understanding of the conflicts and tensions -their prolongation or resolution-which are involved in an actual case of desegregation. In order to understand desegregation one must study desegregation, not attitudes. Social scientists must free themselves from their preoccupation with the relatively simple phenomena of the individual's verbalized attitudes and concentrate their future research on the more complex and relevant problems of the nature and relationship of the various, and at times competing, clusters of power and leadership which operate in a given community. They must study the realistic forces which are involved in the actual dynamic social situation if they are to make any contribution to the understanding of the problems of desegregation. Only through this type of realistic understanding will they help our society develop the knowledge and techniques required for a smooth and effective transition from a segregated to a non-segregated society.

Kenneth B. Clark College of the City of New York

Schoolhouse, edited by Walter Mc-Quade. New York, Simon and Schuster, 1958. 272 pp. \$10.00.

This is really three books. When you first pick it up you find yourself treating it as a picture book. From the first page to the last it is filled with wonderful photographs and drawings of children from kindergarten through high school. The first few chapters are exciting reading about the wonderful process of learning. Then the book gets down to the business of what happens before a school is built; how it happens before a semitechnical discussion of is built; and a semitechnical discussion of everything from windows to heating plants.

The result of all of this is one complete book that should be on the "must" reading list of every school administrator, teacher, and parent. It is a human book. A list of the advisers and consultants Mr. McQuade worked with makes it obvious that this is an authoritative book.

This is the type of book you find your-self quoting. Each chapter is headed by a quote from such diversified sources as Walt Whitman, F. Scott Fitzgerald and an eight-year-old artist who says: "When I am going to draw a picture, I make up my mind what I am going to draw. Then I always start with the feet because if I start with the head I don't know whether I will have room for the feet." This is from the chapter on "Design."

Many more schools—schools that are what the community needs—would be built in this country if the detailed story of what happened in Winfield, Kansas, could be read by every voter prior to a bond issue vote. The complete presentation of the facts behind an almost disastrous situation in one town is worth the price of the book.

Mr. McQuade and his advisers and consultants know children. But, more important, they love children. Add to this that they also know adults with all their faults and you have a human document that makes this an important book. This is no superficial treatment of the subject of schoolhouses. What teacher could read this statement without saying "how true": "Preparing a class of little children to face the weather can be a staggering task. The invention of the zipper did not solve it."

This problem—and others even more serious—is explored with intelligence. Not only are they explored, they are presented in a way that makes for fascinating reading. Even the chapter on "Heating and Plumbing" invites reading and understanding by the least technical-minded reader.

Probably the greatest of all the mysteries facing the school board and school administrator when they decide to build a school is the mystery of the architect. The pro-

fession of which this writer is a member is treated fairly and with intelligence. Perhaps it is selfish reasoning that motivates architects to recommend this book so highly. However, nonarchitectural acquaintances have remarked after finishing the book that they now have more of an understanding and appreciation of the architect's role in a school-building program.

Architecture is the most responsible of the arts—or, as Mr. McQuade says it: "An architect properly is not a pure artist, but an artist of utility. Yet, when all the practical aspects of the program have been met, when all the coat closets and thermostats, and chalkboards and ductwork are figured, the most deeply utilitarian thing the architect can do for a community of parents, administrators, teachers, and children is giving them a school building they like, perhaps love."

Let's hope that this book will in some way help the nation get more schools that all of us can "perhaps love." Buildings that can be loved are a wonderful thing as you will learn when you read this book. Perhaps you have already experienced this love of a building. If you have, this book will help you understand why.

One of the most significant statements in this book is "Learning today is full of action." This action has caused us to stop and take a look at the schools we are building. This action has meant more understanding of why a schoolhouse is built. This action has resulted in a significant number of schools being built in this country for the children and teachers who use them. This action has resulted in the writing of the book Schoolhouse, which will, perhaps, make more of us aware of the importance of our children's educational facilities.

As Frank L. Magee, president of the Aluminum Company of America, says in the foreword, "Children are more than statistics."

Lawrence B. Perkins Perkins & Will Architects-Engineers Personality Assessment Procedures, by Robert M. Allen. New York, Harper and Brothers, 1958. xi + 541 pp. \$6.00.

Subtitled "Psychometric, Projective, and Other Approaches," Allen's book is essentially an overview of several hundred instruments currently available for the evaluation of personality. One man's attempt to survey so vast a field may evoke our admiration for heroism; but, as is the case in so many instances of heroic effort, the odds against it are simply too great. And the situation is made worse by compressing so much information into the small compass of this volume. Anybody who wants information about specific tests of personality will do far better to consult Oscar Buros' capably edited Mental Measurements Yearbook, a fifth edition of which is due soon.

Allen's rejoinder to this criticism is undoubtedly that his book is a text for undergraduates and that, consequently, the specialized material in the Buros yearbooks and other professional sources is irrelevant to his objectives. If such is the reply, however, it raises the question of the place of this kind of survey of assessment techniques in an undergraduate curriculum. In dealing with it (which he does not), the author is likely to become hoist with his own petard.

One of the best things in Personality Assessment Procedures is the brief but cogently presented final chapter on "Testers and Ethics." From a neat condensation of relevant principles in the Code of Ethics of the American Psychological Association, Allen makes a sound case-an admirable argument for undergraduates to be exposed to-for adequate professional training, including basic study in psychology and supervised experience, as a prerequisite for using personality tests. This position is consistent with the assertions made throughout the book that the psychological examiner and the test interpreter, often the same person, are frequently significant variables in determining any conclusion reached from formal assessment procedures. Considerations of this sort, Allen rightly points out. have led to the development of licensing and certification laws in several states to regulate the use of personality tests as well as other forms of psychological service.

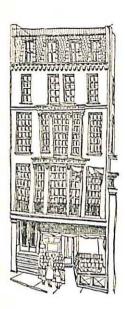
But these very considerations also suggest that the kind of overview that Allen presents is inappropriate to undergraduate training in a professional field that has become predominantly graduate in its preparation. It has about the same degree of relevance as a survey of medical diagnostic procedures for junior zoology majors! Is it not much more probable that prebaccalaureate psychology students and persons in other fields could profit more from an understanding of how personality tests are devised, how they are related to more general psychological knowledge, and how major problems in their construction and application are defined and grappled with? Material from specific assessment instruments could be introduced by way of illustration and to concretize these more general and fundamental issues. To devote an entire textbook to them risks instructing students in precisely what the textbook declares them to be unprepared for.

The consequences of this argument could be escaped readily if one could say that the discussion of particular tests in this volume is a vehicle by which the student is carried to a richer understanding of the problems of reliability and validity in psychological measurement; of the relationship of personality tests to personality theory; and of the methods of behavioral science in tackling its basic problems of mensuration. Unhappily, such is not the case. Readers may emerge from these pages with a smattering of knowledge about a number of personality tests. They are most unlikely to have had their ideas challenged, their capacity for a critical appreciation of behavioral science enlarged, or their appetites whetted for a greater understanding of the methods and problems involved in man's attempt to investigate his own nature through psychological assessment.

Edward Joseph Shoben, Jr.

Teachers College, Columbia University





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TEACHERS COLLEGE RECORD

Education and Humanity*

JOSEPH HAROUTUNIAN

CYRUS H. MC CORMICK PROFESSOR OF SYSTEMATIC THEOLOGY, MC CORMICK THEOLOGICAL SEMINARY, CHICAGO

To explore the bearings of Christian theology upon education we must begin by recognizing that both theology and education, or even Christian theology and American education, are large subjects, and that there is no unanimity as to what is meant by them.

Theology is disciplined thinking of the Christian faith. There is no universal agreement upon the Christian faith. But this need not embarrass us too much at this time. To think as Christians we need not so much an extensive common creed as a common history, a common life and a common mentality that go with the name we bear. To think as a Christian is to consider the question of Jesus, "Who do men say that I am?" 'It is to consider the meaning of this ques-

*Dr. Haroutunian is President of the American Theological Society, Midwestern Section. He is editor of *Calvin: Commentaries*, a member of the Library of Christian Classics Series which was published in 1958.

tion for the nature and destiny of man, for our way of life, for our habits of thought and conduct, for our institutions, one of which is the school. The problem of this discussion in a sense is, What does Jesus Christ mean for American education?

Education is the process through which we prepare especially the young to participate, both effectively and creatively, in "our way of life and the institutions which support it." A country such as ours is a complex civilization, with special and highly developed habits of sensibility, thought, and action. It is necessary that our ways of feeling, thinking, and doing things, in our several institutions, be taught to our citizens, so that we may exist and prosper as this particular people. Our education is to a large extent the process by which we guide our young toward rich and fruitful lives in our society. Therefore, we

are concerned with growth and adaptation, skill and competence, cooperation and contribution. We expect our young to maintain our way of life and to improve it; and we believe this is done best through a process in which discipline and freedom increase hand in hand. It is expected that both discipline and freedom will be exercised in the context of our several institutions, that those who are educated will play certain roles in our society, and play them well, at once for their happiness and for the continuation and progress of our way of life.

Now as a Christian thinker I do not feel called upon to "challenge" American education. It is not my business either to approve of or to condemn our education. I merely wish to examine it as a Christian. I wish to raise certain questions, hoping that you, as educators, will think them over and keep them in mind.

I think it is a disservice to the young that the one aim of education should be to enable them to function effectively in the institutions which constitute our way of life. An institution, whether economic or political, whether military or ecclesiastical, exists for the satisfaction of public and common needs. It represent habits and mores which enable people to share in a certain way of life. It requires that men behave as good family men or business men, as good voting men or church men. An institution is concerned with the roles people play, and identifies them with these roles. So, a person may be a father, a dentist, a Democrat, Giant fan, Presbyterian. Beyond these he is, we say, an animal; he is an animal who has been taught to play certain institutional roles. What makes him a human being is the sum of the roles he plays. He is recognized and acknowl-

edged as this man by the particular conjunction of functions he fulfills in the institutions which make up our society. He is recognized as this teacher, this voter, this buyer, this veteran, church man. And he goes by the name of Harry Jones. Thus it is that he is acknowledged as a person and a self, as a human being. His humanity consists in the contributions he makes to the common good and in his participation in it; so that when another man meets him, he sees the organism, the salesman, the voter, the soldier, and nothing elsenothing that falls outside of his biological and institutional characteristics.

Now I think people are angered and frustrated by such an understanding of them and by the behavior that goes with it. Even though we are content to be frequently treated as teachers, buyers, voters, and so on, we are disturbed—I think it is not too strong to say infuriated —if we are not acknowledged as human beings. Our humanity does not consist. in the roles we play. We do play roles, and we cannot have a common human life without them; without our habits and our public morality. But it does not follow that our humanity consists in the parts we play in our institutions and our way of life. This is a simple logical point. A human being plays a social role; but his humanity does not consist in his playing a social role. When a husband or a wife is recognized as a husband or a wife, he or she is not therewith recognized as a human being. When a teacher is recognized as a teacher, he is not recognized therewith as a human being. When a benefactor is acknowledged as a benefactor, he is not therewith acknowledged as a human being. When he does good to another man, he does not therewith see this other man as a human being. In short, there is no institutionalized relationship among people which constitutes the bond of humanity, and no conjunction of functions in a way of life which constitutes a human being. Education in favor of our way of life and the institutions which support it is not in itself education for humanity; rather, it makes for the suspension of humanity and for its annihilation.

I should now say more about humanity. When I look at a man as I look at my dog, I do him an injustice. He is an animal who eats and drinks, walks and sees as an animal. But this kind of thing which I share with him, which is important for him and me alike, is not what makes him a man. If I treat him as I treat my dog, he does not like it. He resents it as a violation of him, and I acknowledge that he, is right.

is right and I am guilty. If I see this man as a teacher or salesman, if I act as if he were real only as a teacher or salesman, if I see in him nothing but a man who "knows his field" or is about to sell me a suit of clothes, we do not enter into a human relationship one with the other. Our meeting may require that he act only as a teacher or only as a salesman; we may not resent this limited character of our concern one with the other; we may deal with each other with courtesy and success. But neither of us is deceived. He recognizes and I recognize that even though we have played our two roles properly, and have spoken and acted effectively in the institutions which support our common life, we have not met satisfactorily as human beings. Even if we have conversed, as we might have, about the weather, or scholarship, or business, or politics, or religion, the bare fact, as it were, of such conversation has not made our meeting human. Such things are occasions for the exercise of humanity, but are not in themselves such an exercise.

The intercourse engaged in by bearers of social roles who are recognized as nothing but animals performing institutional functions is empty of that humanity which makes a man a man. We often do meet people and transact some business, and go away without having felt, thought, or acted as human beings; but such meeting is empty of the joy and fulfillment which an authentic encounter of man with man engenders. In short, a man is not a role or any complex of roles. Every man plays roles, but unless he is recognized and acknowledged as a man who is playing his roles, he is misunderstood and treated ill. I admit that we do not meet a man except in our playing of a role; but in my opinion unless we meet a man in a role, we do not meet a man. A man is not known in abstraction from his institutional functioning; but the institutional activities of a man abstracted from his humanity do not present us with a human being.

Who and what is, then, this man who is not satisfied when I look at him as a beast and a role? What does he want and expect me to see in him? How must I see him and act so that I may be truthful and faithful toward him? What is there in his mind and on his heart besides his biological and institutional being that leads him to stand there before me hoping that I will understand and feel with him? There is no question that he demands some gesture, some intimation, perhaps some word, from me which will express the truth about him, even though he himself may not know what it is that he must have if I am to recognize him as my fellow man.

What my neighbor expects and demands of me is that I acknowledge him as this living being who is anxious for his life, this individual of flesh and blood who lives toward death and knows him-

self as living toward death. He is an animal who knows he is an animal, whose knowledge of himself is also knowledge of his fate-his fate being that he shall sometime cease to be, to enjoy, and to act. He not only knows his fate but also feels it; it is integral to his sensibility, to his feeling for himself and his world, to his encounter with his fellow men, to his playing his several roles, and to the future conduct of his life. While he stands there before me as a colleague, or a member of the family, or a salesman-in whatever institutional relation he is to me-he is and he feels as this "soul," this living person whose prospective nonexistence is a present qualification of his being and behavior as a whole and in parts. In every meeting where he acts and is acted upon so that he is aware of himself as over against another, he is aware of himself as a human being, as this creature and contingent being who is not in truth the lord of his life and is in no position to dispose of himself as he will. Even while he speaks to me of some business on hand and pursues a purpose in our common world, he is looking for a neighbor, a fellow man, a human being who will give a sign of recognition and evoke in him the joy that goes with recognition. The meeting may of course be too fleeting and too perfunctory. One or both of those who meet may be too preoccupied with the immediate reason for meeting to meet as human beings. Nevertheless, without the hope of mutual recognition as flesh and blood, there is neither human living nor the fulfillment and joy that go with it.

When a human being is treated as though he were identified as a member of a species and a complex of roles, he is violated. But what else is he? He is a being related not only to his species

but also to himself. In a strange way he interprets this living and dying self of his as unique and unrepeatable. Since he lives and dies, and knows that he lives and dies, he alone is he. He is he; he is as this living being; and all his thinking, willing, feeling, doing is that of this person and not that of another. As the thinker, he knows himself by the contrast between his thoughts and the thoughts of others. As a will, he knows himself in his responsibility to others. So also he knows himself in his feeling and doing in relation to others. But in all this, he knows himself as this anxious and guilty being who violates himself and others in his rejection of others and of himself as creatures; which is sin. This sin is against God; against a grace which is prior to himself and his neighbor—the grace whereby he exists and is this human being. His God is his Creator, the origin of his and his neighbor's being, who has created them in his freedom as God, having no reason for his creative act other than his own "good pleasure." It is the creature's knowledge of this God, of his grace and faithfulness in the existence of his creation, that constrains the creature to acknowledge the sin of rejection as sin against God and the sign of his own and his neighbor's humanity. In this respect, and concretely, the recognition of humanity is inseparable from the knowledge of God, who is violated through the creature's refusal to be a creature and his refusal to acknowledge his neighbor as his fellow creature.

But such knowledge and acknowledgment come to the Christian thinker in Jesus Christ in the company of his fellow Christians. Jesus Christ is the source of his self-knowledge as a human being. Love of Jesus which restored "sinners" to their dignity as people and opened them to their Creator, to themselves, and to

their neighbors is the sign and the power of humanity. The teaching of Jesus is the very way of humanity: the statement of what it means to live as a human being. The death of Jesus, with its victory over his own anxiety and the temptation put before him to deny God and his neighbor, with its faithfulness to God, who had circumscribed his life by the death on the cross and uncovered the misery of man by the very inhumanity of the crucifixion—the death of Jesus is the Christian's promise and hope which not only vindicates humanity but also creates it through the working of God in the society of his fellow man. In short, for the Christian thinker, humanity is known and hoped for in Jesus of Nazareth, in that love which moves us to see our neighbor as God's "intelligent creation."

There are two aspects to our social life. The one is our common existence through participation in our several institutions. Here we form certain habits of thought and behavior, engage in certain deliberations and exercise certain skills which enable us to cooperate with others in the interests of our security and prosperity. Here intelligence finds ways and means of uniting self-love with altruism, and we each benefit from a common success. Even while we pursue our own good, we keep mindful of others who pursue their own. Insofar as we are prudent, we seek our own good in the context of a common good provided for in our institutions, and we find our pleasures in the company of others. But it is incongruous with the nature of institutional occupations that we should be concerned with the good of others as we are with our own, or that we should love others as we love ourselves.

Where there are conflicting interests, we do, despite certain demurrings of reason and conscience, prefer, by the nature

of our institutional life, our good to that of others. And there are frequent if not constant complaints that we use, more or less considerately, our neighbors for our own increase. It thus becomes an axiom of prudence not to place ourselves under the power of others, and so far as possible to place them under ours. We think not only for solving common problems for a common good but also for achieving superior power among our neighbors. And the pursuit of power for restraining others generates an enmity whose natural tendency is to turn each man against his neighbor, and to leave each man alone with his anxiety for life, which eats away at his joy in being. My opinion is that intelligence, competence. skill, exercised in the context of our institutions which provide for the fulfillment of needs related to security and prosperity, by people whose reality consists in the roles they play in these institutions, tend to become instruments of power for the domination of man by man.

There is a permanent conflict between social life as formed and informed by our institutions, and social life as evoked by mutual recognition of men as human beings, as creatures in their circumscribed existence, who have their fruition, not in the goods made available by the pursuit of enlightened self-interest, but in that love which is an absolute good because it is the good of the very practice of humanity. This second aspect of our social life, which is realized in obedience to the commandment, "Thou shalt love thy neighbor as theyself," is utterly incommensurate with institutionalized habits, acquired competences and skills, and "the pursuit of happiness." When a man loves his neighbor as himself, he loves not a conjunction of roles in an animal, but a fellow man, for whom his

love or recognition is life itself and joy. Here instead of habits, we have decisions, free acts of love; instead of competences and skills, we have sensibility and diffidence; instead of "the pursuit of happiness" and the operation of enlightened self-interest, we have the joy of two "intelligent creations" and the workings of the creature's compassion as a creature. Instead of intelligence engaged in seeking ends and devising means according to a tried and dependable method, we have intelligence attending to the signs of a fellow man's sensibility as a creature, and responding to them with that love which one "soul" owes to another that is bound with him in the bundle of life. Here the function of intelligence is not to number our power but, as the Psalmist says, "so to number our days, that we may apply our hearts to wisdom": to that wisdom which enables us to live in the joy of the living and the sobriety of the dying, one with another. The struggle and cooperation for existence, and human fulfillment in love -these two aspects of our lives are indispensable for happiness and peace among us. It is the radical failure of our age and culture, of our philosophy and education, that intelligence has been separated from that wisdom which is the creature's thinking and acting as creature with his neighbor.

It is evident that we can be taught, trained, and educated to play our several roles in our institutions with more or less success. We can be taught languages and mathematics, our several physical and social sciences, our ethics, our world views and our arts toward an effective pursuit of enlightened self-interest. This is the kind of success our education is for. But, it is not evident that we can be taught, trained and educated, as we are for our role-playing, for lov-

ing our neighbor as ourselves. When it comes to love, we are, as it were, up against it. Loving is not primarily a matter of finding ways and means, of competence in the pursuit of an acknowledged end. It raises, every time I meet my neighbor, the question of my own being rather than of my competence.

The problem is not how I shall love my neighbor but whether I am a neighbor or a man who will love my neighbor as myself. When I take my responsibility to love to heart, when I consider my failure in this respect, I understand that I myself am the problem, and that loving requires a change in me; rather, that I myself change; that I who live for security and prosperity in my physical and social environment, live above all as a human being, by the love of my neighbor and in loving him: which demands that I who am not a neighbor become a neighbor.

When I consider the openness, the trust and hope, the self-limitation and renunciation of mastery that love involves, I recognize that if I am to love or act as a human being with my neighbor, I must become a different sort of person, with a new mind and heart. My present mind and heart, trained and quickened in the institutions which support my way of life, are in no position to lead me, or even to permit me, to recognize my neighbor; to acquiesce in, much less rejoice in, my neighbor who is the bearer of the sign of my circumscribed and contingent existence as well as my indispensable partner in the pursuit of my self-interest. I see in my neighbor my own limitedness both in being and in destiny, because his presence quickens in me that anxiety for life which turns me against both being and destiny. I see in him my enemy as well as my neighbor, and I protect myself against

him by keeping him at arm's length, by closing myself to him and shutting him off from myself. Thus I deny effectively that he is my neighbor. I deny that he is a human being, and is to be treated as one. Since he depends upon me, upon my love, for his life and living as a human being, I, by denying his existence as a living soul, consign him to perdition. My repudiation and my indifference are to him signs of his death. Without my love his life is meaningless, or empty, a kind of dreaming without substance and without joy-the joy of a human being by love. I am judged by him a liar and a murderer: a liar because I deny him by my unfaithfulness, and a murderer because I deny him the love which is his life. He pronounces me a sinner and guilty; and this sin and guilt I cannot deny, either as truth or as power. Willing or not, I live as a violator of humanity and under condemnation. This is the wrongdoing and misery which ooze out the poison in all our wrongdoings and miseries, and turn our common life into an occupation with mutual defacement. In it we know ourselves as people.

Such confounding of our common life is so devastating that neither I nor my neighbor will assume responsibility for it. We will deny our misery; and if we cannot do that, we each will accuse the other as the lying murderer. But since this is too painful, we will agree to live by our enlightened self-interest, and try to be as pleasant and comfortable as possible. We will be considerate and try to outdo one another in doing good. We will benefit one the other in our institutions and congratulate ourselves concerning our way of life. All the while we will keep a safe distance between us, and continue to diminish one another by withholding the love which is the neighbor's access to a meaningful and joyful

existence. So, we neither forgive one another nor hope to be forgiven. The one condition of life, the acknowledgment one of the other, is left unfulfilled, and we live, rather die, without hope. Each man's possibility of life is in the neighbor's love; but for liars and murderers there is no love, either given or received, except in forgiveness; and forgiveness of liars and murderers is contrary to the nature of things. Therefore, we continue to justify ourselves by our "good works," and condemn ourselves to a life of hypocrisy and violation, whose end is a living death.

Education serves a double purpose. It informs and trains the young for effective participation in our way of life. This function of education is well known as well as indispensable. But this is not the issue here. I am concerned rather with education as it serves what I should call "justification by works." A member of society who contributes to the common well-being of his fellow men by playing properly his several roles in our institutions is justified by his works. He acquires a sense of dignity and claims certain rights in the community by virtue of doing his part for the life and prosperity of others. A teacher, a worker, a business man, an artist contribute in definite and palpable ways to the common life of their fellow citizens, and in so doing acquire merit, and rightly expect to be rewarded not only with a living but also with security, status, power, and recognition as each a substantial being. They establish their right to "life, liberty and the pursuit of happiness" by the exercise of their own powers and competences, and are deemed "righteous" as long as they continue their contributions to society. If they are considerate and kindly toward others, so much the better. The more they attend to

other people's interests, the more they deserve from others in return. They may be trained to be in emotional harmony with others, and thus enjoy their good will as well as those advantages which society offers its benefactors. Thus even their love and justice serve their enlightened self-interests, and establish their rights in the community.

Education which trains the young for such a life of usefulness and self-respect works against the creature's self-knowledge as creature and against the love of the neighbor as oneself. The enlightened pursuit of self-interest in our society is not only incongruous with the awareness of flesh and blood or the living soul; it is also a confusing and confounding substitute for humanity. The man who lives by his competences and the rights which his competences give him in his intercourse with others is in no mood to live by the forgiveness and love of his neighbor. He is irresistibly tempted to live and increase not as a creature bound to his neighbor, but as a god-man who binds others to himself through his own power over their destinies. The anxiety of a man for his life and his recognition of his neighbor as a concrete and effective symbol of his own contingent and circumscribed existence are sufficient inducements to substitute mastery for love as the condition of a happy life. Therefore, education which trains the young for competent participation in a common pursuit of security and prosperity in our institutions tends indirectly but powerfully toward the alienation of man from himself and his neighbor. This is why inhumanity among highly educated people is neither infrequent nor surprising. We give our young "the best education available," and they grow up to live lives without meaning and without joy.

Anyone who takes the problem of love as seen in this discussion seriously, can hardly help wondering if love is a matter of training and growth. Neither plants which grow nor animals we train give us an adequate analogy for the process through which we come to love our neighbor as ourselves, or to offer the respect we owe to God's "intelligent creation." It is one thing to be trained, another to grow. It is one thing to grow, another to be changed so that this lovelessness may put on love. This is why, according to Jeremiah, the Lord says, "I will put my law in their inward parts, and in their heart will I write it . . ." (31:33); and according to Ezekiel He says, "A new heart also will I give you, and a new spirit will I put within you; and I will take away the stony heart out of your flesh, and I will give you a heart of flesh." (36:26) For this same reason, the man able to love is spoken of in the New Testament as a new creation, a new man. It is recognized in the Bible that loving is a matter of conversion, or to put it in stronger terms, of being born again, and that the Author of this conversion and new birth is God. The man who learns what love is from Jesus Christ, and by a strange grace acknowledges his responsibility to love as crucial for his humanity—such a man knows that the love which is his despair as well as his hope is in truth a gift and remains a gift, a gift through his neighbor, from God.

Let a man set out to act in the integrity of a human being, to love his neighbor and enemy, and to hope for the love of the same neighbor and enemy, and he will confess, in spite of the profound disinclination of his mind and heart, that when it comes to the humanity which works by love, God alone is the Teacher; and that the Teacher is the

Creator and Savior. In education for humanity there can be no question of training and growth without the replacement of the "old" man by the "new" man; and man is a creation, a work of God. Loving and being loved, the very existence of human beings, is a miracle. One who loves his neighbor as himself, one who is so loved, knows that "with man it is impossible"; and he calls Him by whom it is possible "the living God."

One might say, "Well then, if it is God alone who enables a man to love his neighbor, let Him do it. This is no business for teachers, and has nothing to do with what we call education." It can be argued that if neither the creation of man nor his restoration to humanity is within human competence, we might as well disavow all responsibility in the matter, and bend our efforts toward the training of the youth for usefulness in our public life. The difficulty is that when we thus set aside the problem of humanity we do more than neglect it. Education which ignores this matter of life and death for human beings, in effect works against it. When we train our young to identify themselves with the roles they are to play in our way of life, and to identify others in the same way, We provide them with a selfhood which is a substitute for a human being; thus We train them for non-humanity, which turns in practice into inhumanity and its consequences in cruelty and misery.

The educator cannot remain neutral in this matter. He who is not for man is against man. Indifference to humanity is the violation of it. When the goal of education is not love, then the end of it is enmity and death. Even though the educators cannot create love any more than they can create man, it is irresponsible and pernicious that they should set it aside as irrelevant to their task. The rec-

ognition of love as the proper exercise of humanity cannot but act as a factor in a proper fulfillment of their function as educators. When the young are educated grade after grade, class after class, by people who acknowledge the hope and promise of love in human life, this very acknowledgment cannot but give a new meaning to their work. To realize that neither language nor mathematics, neither science nor art, neither history nor sociology, as taught by us and learned by the pupils, can produce human beings or make human life meaningful without the reunion of man with man in love-to realize this and to teach with it in mind is indispensable in any education which does not end in the misuse of competence for the frustration of hu-

I believe that an elusive but potent element of personal influence comes into play in this connection. Teachers of mathematics and language who know the problem of love envisaged in this discussion will, while they teach their subjects, while they mind their own business, act as midwives in the birth of the new man. As human beings who live in the hope of love, in the hope of forgiveness given and received, under the promise and faithfulness of God in the love of Jesus Christ, they will teach what they are competent to teach, hoping in God, who is competent to convert them and their pupils to a living humanity.

It is the peculiarity of God's way with us that He does not emerge among us as a gigantic and supernatural power, making a spectacle of Himself before our startled eyes, while we ourselves lean against a wall doing nothing. It has always been His way, since Abraham, to elect servants and to call them to fulfill His purpose of rehumanization among His people. God exercises a peculiar om-

nipotence which operates by the authentically human response of His people, so that while they act as creatures, He acts as Creator; while they follow their vocations, one man teaching, another farming or building, in the hope of faithfulness and love, God Himself, being faithful to His creation, converts sinners and fills our lives with the joy of humanity restored. Jesus Christ came eating and drinking like a man; he lived and spoke and died like a man. And God declared him His Son, and by him brought life and joy into the world; so that we call him our Savior as we do our God. It is offhand surprising that this Jesus should have been the wisdom and the power of God. But that he was, because we know both the wisdom and the power of God by what God did through the humanity of this man Jesus. So, also, it is offhand incredible that the creating and saving work of God should be done by us who groan with the hope of our own creation, our own loving and being loved. It is a strange thing that while we, who hope in God, mind our business teaching this or that, training minds and hands, helping the young to grow, God Himself should convert teacher and pupil, pupil and pupil to that openness to Him, ourselves, and others which is the proper exercise of our humanity in love. But among us, this is how God acts and reveals Himself in His proper divinity as God. When teacher and pupil, in their dignity and equality as human beings, confront one another hoping for forgiveness given and received, for love offered and expected, under the promise of God in their history, even while they occupy themselves with the academic business on hand, there occurs an education which is a new birth of humanity and the making of a joyful existence in man's coming to his own. Thus it is that in our schools, our young will become at once good citizens and truly human beings.

Good citizenship in our country requires the practice of democracy. Democracy has its economic, political, and social aspects. It means common opportunity, government by the people's consent and participation, mutual respect among people of different states and conditions. It involves an awareness of humanity common to people of different race, color, religion, and class. Even while democracy has its institutional aspects in terms of public behavior, its vitality comes from the repeated decisions of the people to recognize one another as human beings, and to act accordingly. Democracy remains authentic and alive insofar as the people are able to overcome their anxiety for life; insofar as there is an antidote to their enmity and a way of reconciliation among them. Democracy without forgiveness and love given and received among creatures lacks its own very substance, and becomes first denatured and then moribund. The struggle for democracy must go on not only on the political level but also in the minds and spirits of the people. The people must acknowledge their responsibility to love their neighbors as themselves. They must acknowledge their failure in this respect, and live in hope. They must see the social life as an opportunity and a promise toward that justice which human beings owe one to another. The people's integrity and seriousness in this matter is the very life blood of democracy.

Education can and clearly does train people to participate in democratic institutions. Our children are brought up to believe in opportunity for all in a representative government. They are taught fair play, cooperation, reasonableness, altruism, and the like, which are demotrative democratical results.

cratic mores. But education cannot convert them to humanity. To look for methods and techniques of training which shall turn roles into persons, professionals into people, is absurd. Educators, human beings who are educators, alone can be and act as the "means of grace" for the making of forgiveness and love among us. Love is evoked only by love, freedom by freedom, and humanity by humanity. And since no man, educator or otherwise, can claim to be in possession of love, or freedom, or humanity, confession of incompetence in this matter, and the sensibility and humility that go with such confession, are indispensable in a good educator. The teacher and the pupil need to look to God for the grace which shall reconcile them one with the other, and in this common looking they are educated for humanity, and for democracy, by God, who alone is the Teacher in this respect.

Therefore, I am not sure that I wish at this time to "challenge American education." In fact, I do not wish to challenge. I only wish to remind you of the need in our time for a recovery of humanity. I wish to suggest that education for maintaining our way of life and the institutions which support it is not as such conducive to such a recovery, and does, as I argued, confuse the issue. Unless our educators recognize the distinction between human beings associated as "intelligent creation" and organisms playing several institutional roles, and permit this distinction to be effective in the school, the supreme need of our generation for the love of man for man will be unfulfilled, and we shall remain at the brink of disaster. Our situation is perilous; not only our way of life but our very existence as mankind is at stake. Therefore, I invite you to examine the

argument I have presented. If it is not valid, you may forget it. If it is valid, I hope you will act on it.

I think I should make it clear before I finish that it is the business of education in our society to produce citizens who will operate effectively in our several institutions. It is obvious to me, as it is to many of you, that our institutions and organizations are indispensable for a common, American way of life. I love and respect this way of life, with all its defects, and consider it my duty as a teacher to contribute to its maintenance and improvement. But I am also aware that unless as an educator I am concerned with the problem and hope of loving my neighbor as myself and my pupils' recognition of their neighbors as human beings or "God's intelligent creation," I do a dreadful disservice to our way of life; because without love, enlightened self-interest operates in fact as a violation of man by man. Participation in public life through institutions is civilized living itself. But such participation without the love of creature by creature is inimical to human culture, and a way of death for human beings. Therefore, even while we educate our young to contribute to our way of life, we must do our work, as educators, with the hope that in our give and take with the students, God Himself will teach them to live as human beings one with another.

One final word. The synagogues and churches of our land are supposed to be sources of the kind of awareness which underlies my thesis. If they are weak, let us make them strong. Whether they be weak or strong, I think we should do our share in making them authentic associations of human beings, so that in our vocation as teachers we may behave as people.

Behavior and Misbehavior in the Humanities*

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It is, of course, most flattering to have been asked on this occasion to be the Atlas of the humanities: to have been asked somehow to carry the world of the Humanities on my shoulders; and then to exhibit it to you for your understanding of its implications now and in the future. The burden is, to be sure, an impossible one to bear properly—at least

* This is substantially the text of the lecture delivered as part of the Summer 1958 All-College Series, "Contemporary Challenges to American Education." I have deleted some of the repetitions and restored some material cut out of the original because of restrictions of time. Yet I have not attempted to convert the lecture to an essay for reading, because I have wanted to keep the spirit of personal communication and tentativeness which I tried to get into the lecture. For this is, in the deepest sense, simply one man's report to a group of his peers. (The title is, I trust, an appropriate afterthought.) And I have ventured to say once more some of the things I said in another lecture, "Education as a Discipline," delivered to the TEPS Conference of the NEA on June 25, 1958, and recently printed in The Education of Teachers: New Perspectives (Washington, 1958), pp. 95-107. The present lecture had best be read in connection with that one; for in this one I attempt to particularize, whereas in that one I had perforce to generalize. For an even more detailed and intense particularization of the issues raised here, see my "Historicism Once More," Kenyon Review, XX (1958), 554-91. The proof of the pudding for all of us, however, remains in the making. R. H. P.

(Dr. Pearce is currently on leave from Ohio State University, completing a book, "The Continuity of American Poetry.")

for me. But then Atlas is only a figure out of myth. His is one of those makebelieve worlds which we create in order to get some controlled understanding of the complexities of our own. His is not the real world; but it derives from the real world, our real world, and is sufficiently relevant to it to let us undersand it better, if indirectly. This is my position. This is our position. For, traditionally, humanists have found that their job was by definition an impossible one to do directly; that they cannot study and expound human behavior directly as, say, a behavioral scientist can. So, where the behavioral scientist has made it his task to cut through and systematically discount myths like that of Atlas, the humanist has had to be satisfied to study and expound indirectly, in terms of the very myths and modes of make-believe in which human behavior seems inevitably to be expressed.

I shall therefore not try to define the humanities substantively, as so many disciplines or fields. Rather, I shall try to define them functionally—in terms of characteristic assumptions, commitments, and procedures. For if I say to you that the humanities include literature and philosophy and often history, political science, and the like, I have only pointed to so many pigeon holes. And here, I

take it, we are interested in pigeons. The problem is therefore: What do the humanities (by which, of course, I mean humanistic study) entail? How can it be that not only literary documents but all other kinds, not only acts of what we call "the creative imagination" but all other kinds may be viewed humanistically? How, indeed, is it that all behavior (for documents, like acts, are forms of behavior) may be viewed humanistically, if only it is viewed indirectly, in terms set and defined by the documents and acts which it produces? Why is it that the humanist insists that, for all his certainty that he has a pretty good idea of what man is, he can define that idea, that essential idea, only in terms of what man does? This, I take it, is the humanist's most crucial article of faith. This is what forces him into that study by indirection which makes him the object of so much of his students' and colleagues' and auditors' impatience.

Why can't the humanist study human behavior directly? The answer is quite simple. Because humans do not behave directly. Because their behavior is always mediated and organized in forms and styles and modes which they have acquired as they have participated in the societies and cultures in which they happen to live. So that for the humanist there is no such thing as "behavior." Or rather, there is such a thing, but it is so general and abstract as not to be of primary interest to him as humanist. I do not say that he thereby condemns, say, those behavioral sciences which are interested in this general and abstract thing we call "behavior." (Indeed, the humanist conceives of the behavioral scientist's interest as exemplifying his style of behavior, and thereby might even set out to study the behavioral sciences humanistically.) The humanist is interested in the general

laws of human behavior as much as the next man, but only when and as they eventuate into particular instances of behavior. The humanist, that is to say, is concerned above all with the people, with the individuals, with the persons, who behave. He wants to know: What does it mean for them as humans, as persons, as individuals, to behave thus? What did it mean for the ancient Greeks to hold to a belief in Atlas? What does it mean that a teacher of American literature named Roy Harvey Pearce chooses, however diffidently, to figure his task as that of an Atlas?

The humanities, I am saying, are precisely those disciplines which focus on the study of man as a person. Indeed, the very word "humanities" tells us this much. It is derived from humanitas; and is meant to denote those qualities of the intellect and sensibility which we might call, if the word hadn't been vulgarized and sentimentalized, humane. The humanist, whatever his particular field, whatever his religious and metaphysical assumptions, as humanist, studies, elucidates, explicates, and evaluates man's bumanitas (and likewise his inhumanitas) to man. Traditionally the humanist has found the richest sources for his studies in the arts and philosophy-those forms of human expression which are most dedicated to expressing and revealing humanitas. But he is by no means limited to the arts and philosophy. As I have pointed out, he can study any form of expression and activity, to search out there its component of humanitas and the relation between the form of expression or activity and the humane spirit which is therein expressed or put into action. Traditionally his sources are the Lears, the Essays on the Human Understanding, the Pragmatism, and New Testaments of this world. But he may just

as likely turn to the organization of the front page of *The New York Times*, or, indeed, that of this lecture series. He will be guided solely by his overriding concern for the humanistic implications of such materials. He will seek to *interpret* them. This, then, is his role: to interpret the record of man's beliefs and commitments in such a way as to demonstrate how man's sense of himself as man—his *humanitas*—is implicated in them.

Recall how the concept of humanism as we know it now came into being. It was a Renaissance concept (although now we know that it was prefigured and forecast in the Middle Ages). It was marked by rediscovery of the glories of pagan antiquity; and it made for a focusing of attention on the secular, thisworldly aspects of human behavior and expression. It was not, of course, thereby antireligious. Indeed, the great Renaissance humanists were devout men and set themselves to the task of synthesizing their sense of the secular and the religious. For us the important point is that the humanist movement was such as to call to men's attention their glorious yet limited existence as men on this earth and to make them want to understand the meaning of that existence in all its glories and limitations. We are, of course, heirs of the Renaissance. Our impulse to technological and scientific expertise originates in the Renaissance. But among us, ironically enough, that impulse has developed to such extremes that we forget that it was men whose impulse it was, men who were to use, not be used by, science and technology. We forget to measure the cost of our own success—a cost not only in the loss of an active religious sense (which is not my subject here) but also in the loss of an active humanistic sense.

The humanist's task, indeed, is now (as

it has always been) somehow to tell us what we have lost, or are at least in danger of losing. Moreover, he tells us not in the direct, lecture method which I am using now, but in the indirect, humanistic method. He teaches us to know documents (documentum is Latin for "example") which are so deeply and richly charged with the humanistic sense that, if we come to know them well, we find our understanding of ourselves somehow increased, or conditioned, or changed, or sometimes even transformed, by that knowledge. (Saying which, I think that what I should really be doing is reading, say, Moby Dick with you. But then I trust that you will take what I say as an invitation to try Moby Dick again. If my remarks have any value at all, the value will accrue from the sharpening or intensification that you might have if you

do try Moby Dick again.)

But I must continue to talk generally: to give you some indication of what the humanistic view of behavior entails as regards the nature of the individual person and his situation in his culture. It entails, above all, the humanistic sense—the sense of humanitas. How am I to define this? Let me remind you that here definitions are dangerous unless they are used pragmatically, as guides to searching for the thing defined. For humanitas simply is not abstractable; it does not exist except in the context of human expressions and activities: in Lear, or Pragmatism, or the New Testament, or Moby Dick, or the front page of the Times, or in the situation of my talking to you thus. Because it exists only thus, the humanist who would devote himself to its study and explication must always work indirectly, obliquely, in terms of expressions and activities. (Thus my regret that we aren't looking at Moby Dick together.)

But anyhow you do know what humanitas is. You can't help knowing; for it is one of the things which make you what you are. You may try to forget it; but in so trying, you will be keenly aware that you are trying to forget it; and so you will remember. Here I might well paraphrase Louis Armstrong on the definition of jazz: "Humanitas is what, if you have to ask what it is, you ain't ever going to know." Only there is this difference: you know already; only you, like me, live in a culture which increasingly would encourage you to forget. But let me give you a recent definition of humanitas:

When I try to delve into my innermost feeling, my initial feeling of self, I find at bottom there is not a feeling of sheer existence, or of sheer thinking, the Cartesian cogito. There is immediately and simultaneously, something more. There is implicit in my feeling of existence a feeling of organic existence, or organicity, of wholeness. Distorted, stunted as it may be by the wear and tear of modern life, the original form is still traceable as it was present in the bud of youth: a ball radiating strength and capacity: all sidedness, all-potentiality; coherence, correspondence....

Then let me give you a Renaissance definition:

I know my soul hath power to know all things.

Yet is she blind and ignorant in all; I know I'm one of nature's little kings, Yet to the least and vilest things am thrall.

I know my life's a pain, and but a span; I know my sense is mocked with everything:

And to conclude, I know myself a man,
Which is a proud, and yet a wretched
thing.²

Now, although these definitions are couched in considerably different lan-

London, 1958), p. 250.
Sir John Davies, from Nosce Te Ipsum

(1599).

guage and proceed from considerably different eschatological assumptions-the first is existentialist and the second is traditionally Christian-now, for all the difference in these definitions, they have in common a crucial quality: a sense of the ineradicable self-consciousness and self-realization of man, and thus of his sense of himself as being before and after all things, for good and for bad, an individual. They would call our attention to the fact that man discovers his pride through his wretchedness and his wretchedness through his pride. They are concerned to look not at man's behavior per se, if indeed that were possible, but, by indirection, at man's confrontation of himself through study of his behavior. They are concerned to have us confront specific and concrete instances of man's self-confrontation, as it were, in such a way-through study of his behavior in art, technics, philosophy, science, day-today mores, and the like-as the more fully to know him as man. They would teach us to ask, What is man that he behaves, and expresses his behavior, as he does? And what does he do to himself by behaving thus? How much of his manhood, of his humanitas, does it cost him to behave thus? They would remind us. as Thoreau learned at Walden Pond, that when you drive life into a corner, what you discover is yourself-for good and for bad, you discover yourself. You discover that the one thing you can't escape is the fact that you have made the discovery. The humanistic view of behavior is, in short, that which would show how it is man's fate, his glory and his curse, again and again to catch himself in the act of being man.

The humanist knows that to do so is a humbling, by no means a humiliating, experience. It is humbling because it teaches one how hard it is to confront oneself in all of one's humanity. It is humbling also because it teaches one how easy it would be, how tempting it would be, to try to be something else, sub- or super-human. For this reason, as the humanist well knows, the records of our behavior which have the greater humanistic significance are those which celebrate those triumphs which, paradoxically, derive from our recognition of our weaknesses and failures as human beings. It is Oedipus and Lear and Don Quixote and Milton's Adam and Faust and Captain Ahab and Anna Karenina and Pierre Bezuhof and Ike McCaslin who interest us when we seek to understand ourselves as human beings. It is, that is to say, the protagonists of comedy and tragedy, wherein a person is shown as he tries to break through the limitations of his humanitas, fails, is terribly or ridiculously punished, yet somehow wins out, as he, at the end, through an assertion of his humanitas, acknowledges it in all its limitations. So that its limitations are its glories. Behavior entails misbehavior. Perhaps all behavior is, in the concrete, misbehavior. The end of man, of secular, humanistic man at any rate, is his acknowledgment of his manhood. That he must suffer to win his way to such acknowledgment is of the essence of the human situation viewed humanistically; this is also the glory of its curse. No wonder Jacques Barzun tried a year or so ago to explain the humanities to the readers of the Saturday Evening Post by calling them the "misbehavioral sciences."

In his Myth of Sisyphus, Albert Camus meditates on an ancient myth: that story of the man condemned to push a huge rock up a hill, only to see it roll back down, only to have to start all over again—forever and ever. Camus says, nonetheless:

It is during that return [down the hill, to start his task over again], that pause, that Sisyphus interests me. A face that toils so close to stones is already stone itself! I see that man going back down with a heavy yet measured step toward the moment of which he will never know the end. That hour like breathing-space which returns as surely as his suffering, that is the hour of consciousness. At each of those moments when he leaves the heights and gradually sinks toward the lairs of the gods, he is superior to his fate. He is stronger than his rock.³

This is the prime humanistic assumption and therefore the humanist's prime motive as he studies behavior: that, in his confrontation of himself in the act of behaving, in his hour of consciousness, man is superior to his fate, stronger than his rock. It is an assumption that is hard to learn to make—or at least hard to learn to confront. Camus puts it well in the same essay:

Beginning to think is beginning to be undermined. Society has but little connection with such beginnings. The worm is in man's heart. That is where it must be sought.4

This is yet another version, a rock-bottom humanistic version, of "Know thyself."

An important aspect of the history of human behavior, it would surely follow, is the history of attempts to make that self-confrontation somewhat easier: to subtract misbehavior from behavior; to eliminate the particular instance for the sake of the median; to dehumanize behavior. Indeed, the humanistic conception of the self would make us aware of this fact: that it is much easier for a man to be anyone but himself—to identify with a group, or a leader, or a faction, or a cell, or even a god, rather

4 Ibid., p. 4.

³ Albert Camus, The Myth of Sisyphus and Other Essays. Translated by J. O'Brien (New York, 1955), p. 89.

than with himself as (to quote Whitman) "a simple, separate person." The humanist is no better off than anyone else in this respect. Indeed, maybe he is worse off and has become a humanist just because he wants to teach himself to resist his tendency to opt for dehumanized, as opposed to humanized, man. As humanist he can do nothing directly to stem the inevitable tide of dehumanization. He works, as I have said, indirectly-as he expounds, explicates, and evaluates those portions of the record of history which would teach us what it is and is not to be human, what it costs to be human, and what are the rewards of being human.

The humanist, thus, is in a curious position. Professionally he is a specialist in nonspecialization. For the genuinely humanistic view of behavior is, above all, a nonspecialized one: one that pertains to all men, at all times, under all conditions. The danger faced by the professional humanist, like the danger faced by all schoolteachers, is that of so refining his professional techniques that they will subvert the very ends toward which he is working. He might well become so adept in establishing correct texts of documents of humanistic import, or in studying their background and their language, or in demonstrating how they function, that he will forget, or at least neglect, to study and teach their primary humanistic import. This, of course, is not the place or the occasion to discuss the self-set traps into which the professional humanist may fall or the continual internecine warfare regarding such traps that goes on among humanists. Here I need but acknowledge the fact that the traps exist and that the humanist should know this. And at least his profession offers him this advantage: it teaches him to take care.

And here I come to the professional

humanist's deep concern about his peers in some of the other branches of the teaching profession: that they have forgotten to take care; that, like him, they, often unknowingly, have fallen into traps of their own setting; that they have quite cheerfully begun to dance around that bonfire of dehumanization which, in our age, with our special speed-up techniques, threatens utterly to destroy us. For the only way of absolutely dehumanizing man is to destroy him utterly. Only then he will not even theoretically be able to confront himself as a person, a being endowed with *bumanitas*.

These, then, are the questions that trouble the humanist. What does it mean that men should be unwilling to be men? What does it cost? What is entailed in the process of dehumanization? Specifically: What happens when men are so far along the road to dehumanization that they begin to treat dehumanistically documents of humanistic import? Confronting ourselves in all our humanitas, seeing ourselves as we are destroying ourselves-catching ourselves in the act -can we come to know what we are really doing, so perhaps to stop doing it and start doing something somewhat more true to our highest sense of ourselves as simple, separate persons? Let me try to answer these questions as they center on the one: What happens when documents of humanistic import begin to be dehumanized?

First, they begin to be conceived of in such a way that their content, their human content, is split off from their form, their humanly significant form. Then the form becomes a method, then a skill, a matter of sheer manipulative expertise. And the content begins to be understood not as an expression of one way, among an infinitude of possible ways, that man has found it possible to live with himself

in a world he never made, but rather as a belief, existing only conceptually, according to the canons of some logical system or other-and to be judged as such, as being either "true" or "false." True or false thus has become true or false according to some current system of belief, not true or false to life humanistically conceived. Now, admittedly, such dehumanization is a quite useful and efficient thing so fas as the pragmatics of our lives is concerned. We learn to handle methods and develop skills; we learn to build bigger and better mousetraps; and we learn to decide what, in terms of the system of beliefs to which we subscribe, is wrong or right, appropriate or inappropriate. We become technologists or lawyers or social-workersor teachers. But such efficiency is too often achieved at a very great cost: that of being unable to take seriously anyone or anything but ourselves and our system of beliefs; that of developing a habit of believing only in our own kind of efficiency; that of wanting to make all men over in our own image; that of placing skill above understanding, and content above meaning. Perspectives on anything except our own way of life are shut off. Humility is lost. Humanity is lost, because it is lost sight of.

I can give you a simple if exaggerated example of what I mean—and incidentally one which, in a somewhat different version, was originally given to me by one of your number here, Professor Arthur Foshay. Consider the New England Primer. Children were taught their alphabet and taught to read by being brought face to face with such sentiments as this: "A: In Adam's Fall/ We sinnéd all." Strong stuff, surely; but think of what it says when its form and content are taken integrally, as expressions of a view of human behavior which

was consistent with a view of man-a view which most humanists, I suppose, would consider somewhat neurotic, but nonetheless would respect because of its consistency, honesty, and high seriousness. "A" is the first letter in the alphabet; learning it, we know that it is a sign (or symbol) of the first event in the history of mankind-in whose shadow we still live. That shadow is one which has so darkened our intellects that we must go to school in order to clear them up as best we can. Our best is thus not very good, but it is all we have. So learning to read is learning not a skill, but a way of understanding how one, as a person, is a member of the community of both this world and the other. This is the Word, or the Letter, in which we have our beginning. Let me recall Camus: Beginning to read, beginning to think, is beginning to be undermined. Beginning to be undermined is beginning to face the truth about ourselves.

Now, consider a modern equivalent: "Look, Adam, see Eve. Look, Eve, see Adam. Eve said, 'Cain killed Abel.'" You all know the form of this much better than I, although with a sevenyear-old I have been getting to know it pretty well. What has happened? The content has been reduced to a mere excuse for the form. The form has become a means to attaining a mere skill. Substitute Jimmy and Jane for Adam and Eve and Tom and Albert for Cain and Abel. Changed "killed" to "loves." (It is always present tense with us.) And you are in 1958, moving, some of us tend to think, toward 1984— and all in the name of the fuller and richer development of the person!

Now the professional (or amateur, which the professional would be if he is really professional) humanist doesn't want to intensify his child's oedipal dif-

ficulties, to be sure; and he wants expertness in reading skills as much as the next man. But he wants even his child to be confronted with reading matter in which reading is something more than a skill, in which somehow what is said has at least a childlike humanistic import; in which the content is sufficiently serious and relevant to make the child see that beginning to read is an experience, not just a skill. For reading, at its best-and who can afford to settle for less?should be an experience in being human. Beginning to read is beginning to think. Beginning to think is beginning to be undermined. Beginning to be undermined is beginning to confront oneself as a person. Confronting oneself as a person is being a person. And behavior is valuable and worth-while only so far as it is the behavior of a person.

My example is exaggerated, to be sure. But the situation in which we find ourselves today is exaggerated—or extreme, as some of my colleagues say. I give the example to you as a means of emphasizing the way the humanist would expound his documents and then judge them—as they yield insights of humanistic worth, as their form makes such a yielding possible. The humanist searches for documents which help us remind Ourselves that we are human and that, being human, we have the virtues and the faults and the responsibilities of being human. The humanist would by no means discard documents which are merely descriptive or classificatory: documents which help us size up generally and organize the world in which we live. He would only point out that the sizing up and organizing are not enough; that We must always be mindful of the meaning of such activities for those who participate in them as subjects or objects. We must build houses with all the technological skill we have; but we must not forget for whom we are building them.

Let me illustrate again, but now move in the other direction—from the dehumanized (or relatively dehumanized) to the humanized—and try to indicate the uses of both dehumanization and humanization, so as to get them into some focus and then to move toward some conclusions about the meaning, and thus the use, of the humanistic view of behavior in our time.

T

Suppose you and a friend happen to encounter a mutual friend. Greetings are exchanged all around, and you begin to talk. But then someone else, say a man prominent in the community, comes along. And the mutual friend, in the most impolite fashion, turns away from the two of you and chases after the person who has just come along. You and your friend are chagrined; and you comment on the fact that this is how your mutual friend always acts; that he is always concerned to associate himself with the right people and do the right things. And you begin to particularize: He joins all the right clubs; he dresses always in the current fashion; he holds all the current opinions; he succumbs to the latest health fads; and so on. You conclude, quite casually, that he wants status-that he is so anxious about having status that he will neglect his friends, his manners, and his proper duties to achieve it: all without knowing what he is doing or why; or even what he will gain from doing it.

What have you done? You have placed this mutual friend in your world and have begun to understand him as he does and does not fit into that world. This is a useful and needful kind of activity, to be sure, for it helps us make

sense of our world as we live in it and so helps us live more efficiently where and as we are. We come, in short, to locate ourselves and to relate ourselves to others. However informally and unconsciously, we *categorize*. We are not concerned with our friend's behavior as a humanistic phenomenon, but rather as a social phenomenon.

H

Now let me quote from a sociological account of behavior regarding this problem of status, David Riesman's *The Lonely Crowd*:

A particularly striking illustration of the use of leisure by the other-directed person for whom means have become ends is the cult of sun tanning. Marginal differentiation by means of bodily adornment (of which sun tanning is of course but one style) we know to be characteristic of all cultures. Yet there is a difference between contemporary American concern for body image and the patterns to be found elsewhere. . . . Competition in body shape and color as it appears so intensely in America is not related to economic or social advance and only marginally even to sexual conquest. Color competition is an end in itself, not a means to any other end nor an insignia of one's achievements. In summer and even in winter both men and women enter a beauty contest in which they can appraise their personalities and compare nuances in shade and hue of epiderm. Their taste buds, tastes, body image and skin, their "pep" and "vitality," and intellectual and sensuous qualities, are not exploited as avenues of ascent in a well-defined hierarchy. Instead, they are opened to inspection and introspection by a desire to share in the leisure agendas of the adult self-exploiting peergroup.5

What has been done here? More classification, but in a much sharper and more subtle fashion than that of the ordinary,

⁵ David Riesman, *The Lonely Crowd* (New Haven, Yale University Press, 1950), p. 157.

untrained observer. The means to the achievement of status are seen to comprise much more than the mere chasing after the prominent and trying always to be on the inside. The phenomenon is observed to be "an end in itself"; but no judgment is passed; no human cost is measured. The language and style of the passage, which express the conceptualization and form of the technique of analysis used, are such as always to categorize this searching for status, not to look at it as something all too human and to be known directly as such. Once more, there are the means here for us to locate and place ourselves in our culture. Yet that phrase "an end in itself" is there and refers us at least to general categories which may or may not be used as the bases of judgment. The categories are, of course, "inner-directed" and "otherdirected" and they are meant to let us understand how man has dehumanized himself. But, paradoxically, the terms of the understanding participate in that dehumanization. For we don't know what it is like and what it means to be one of these persons, with these taste buds and this pep and vitality.

The gain is one of socio-cultural objectivity. The loss is one of humanistic understanding. It would seem that we can't have the two at once, but, as I shall maintain, we need both, alternatively, complementarily—the one to balance and complete the other. For such understanding demands the sort of identification which, if he were to seek it, would make the sociologist's goal of objective description and evaluation impossible of achievement—as if he were a psychiatrist literally suffering along with his patients. And please note that I have here chosen a passage from a book by a sociologist who minimizes the use of quantification and statistics and maximizes the use of the interpretation of, as they are called, unstructured interviews, person-to-person. I do so because I want to point out that, whatever the sociologist can properly do to look at behavior humanistically, however much he may believe in the possibilities of humanistic understanding (as Mr. Riesman certainly does), if he is to work as a sociologist, he must avoid evoking the kinds of selfconfrontation that characterize documents of interest to the humanist. Correspondingly, however much the humanist may want to understand man sociologically (or socially), he must avoid the sort of classificatory analysis which is the sociologist's means to do his proper job.

TIT

And now I shall quote from a novel about a man who searched hard for status. The protagonist here is finishing getting dressed for his day's work. He is the hero of Sinclair Lewis' *Babbitt*.

A sensational event was changing from the brown suit to the gray the contents of his pockets. He was earnest about these oblects. They were of eternal importance, like baseball or the Republican Party. They included a fountain pen and a silver pencil (always lacking a supply of new leads) which belonged to the righthand upper vest Pocket. Without them he would have felt naked. On his watch-chain were a gold penknife, silver cigar-cutter, seven keys (the use of two of which he had forgotten), and incidentally a good watch. Depending from the chain was a large, yellowish elk's tooth proclamation of his membership in the Brotherly and Protective Order of Elks. . . . [And the author goes on like this, until:] ... he stuck in his lapel the Booster's Club button. With the conciseness of great art the button displayed two words: "Boosters -Pep!" It made [him] feel loyal and important. It associated him with Good Fellows, with men who were nice and human, and important in business circles. It was his

V.C., his Legion of Honor ribbon, his Phi Beta Kappa key.⁶

What has been done here? This man is shown to us, almost in his own terms. As we watch him dressing, we are able at once to identify with him and to ask ourselves what is wrong. So doing, we are driven to that confrontation of self. to that sense of *humanitas*, of which I have spoken. And we discover that this man, at this point at any rate, is nothing except what his various badges of status let him be. We understand him as he is potentially a human but not quite one. We could wish, if we took a literarycritical stance, that Lewis had not intruded himself in this presentation-with his too clever parenthetical wisecracks at Babbitt's pitiful state and his overinsistence on the meaning of all this to Babbitt. We could wish, that is to say, that Lewis had let us sense more fully Babbitt's dehumanization and had not been tempted to do the job for us. In any case, we can know and judge that dehumanization because it has been communicated to us in humanistic terms, in humantistic forms: with the concentration on what it was to be this man, Babbit, in and of himself-not an other-directed person with his special, but typical, means of marginal differentiation. Viewing Babbitt's behavior humanistically, in and of itself, not as an illustration of "marginal differentiation," made to view it so by such art as Lewis possesses, we take him so seriously that we can't merely classify and categorize him. Indeed, he is so important to us that he has given his name to a category. And we say that he is archetypal for all the Babbitts in the world. His general sociological import to us is defined by the particularity-the simple, separate indi-

⁶ Sinclair Lewis, *Babbitt* (New York, Modern Library Edition, 1922), pp. 9-10.

viduality-in which he is presented to us. Here the humanist begins to get a means of looking at general behavior indirectly, through its all-too-human particularizations.

And now for my last example, which is from Stendahl's The Red and the Black.

To Julien, making a fortune meant in the first place leaving Verrierès; he loathed his native place. Everything that he saw there

froze his imagination.

From his earliest boyhood, he had moments of exaltation. At such times he dreamed with rapture that one day he would be introduced to the beautiful ladies of Paris; he would manage to attract their attention by some brilliant action. Why should he not be loved by one of them, as Bonaparte, when still penniless, had been loved by the brilliant Madame de Beauharnais? For many years now, perhaps not an hour of Julien's life had passed without his reminding himself that Bonaparte, an obscure subaltern with no fortune, had made himself master of the world with his sword. This thought consoled him for his misfortunes which he deemed to be great, and enhanced his joy when joy came his way. [Julien continues to think thus, until he says to himself:]

"When Bonaparte made a name for himself, France was in fear of being invaded; military distinction was necessary and fashionable. Today we see priests at forty drawing stipends of a hundred thousand francs, that is to say three times as much as the famous divisional commanders under Napoleon. They must have people to support them. Look at the Justice there, so wise a man, always honest until now, sacrificing his honor, at his age, from fear of offending a young vicar of thirty. I must become a

priest."7

What has been done here? Even when I take this passage out of its rich context,

7 Stendahl, The Red and the Black (New York, Modern Library Edition, 1926), pp. 36-37.

we can sense its power, the coldness and objectivity with which Stendahl renders Julien Sorel's hypocritical logic. Stendahl, unlike Lewis, doesn't intrude his own person. He makes Sorel so complete unto himself, tells us so much about him, that we believe in him-and then find ourselves believing in his quest, however much we may despise it. We begin to know what the demonic quest for status costs. Nothing less than the wilful distortion and perversion of the quester's bumanitas. Even though Sorel's world is not ours, nor is his age, we believe in them, because we believe in him; and we believe in them because, as Stendahl invents them for us they are such as to make him its characteristic product. It is not a form of behavior in general but rather Sorel's behavior in particular to whose possibility, as it images and gives human substance to an aspect of his age's behavior, we absolutely assent. Assenting thus, we are turned back into consideration of our own behavior and the possibilities, in the terms given us by our age and our world, of distorting and perverting our own humanitas. We know how our potential for misbehavior crucially implicates our behavior. The end of such humanistic understanding is knowledge so true that it is not useful. It is just there, challenging us to face up to its implications about all men in general and ourselves in particular.

I must forbear further explication of these passages: further attempts to help you look closely enough at them so that you will see their every nuance—the ordering of thoughts and events, the choice of language, the latent symbolism, the motivations. I forbear regretfully, course; for as I have said, only through learning to attend to nuances, only by learning to look directly at the indirections with which the artist renders behavior, can we achieve a fully humanistic understanding of behavior. But I remind myself, at this point, that I am here to talk about what one does as a humanist, not to do it—although, as you can see, it is hard for me to forbear doing my regular and proper job, the humanist's regular and proper job: interpreting documents (in this case novels) in their varying degrees of humanistic import.

In any case, note what you can and cannot do with, or by means of, such writing as that of Lewis and Stendahl and the men and worlds created in it. You cannot learn how or what to be or not to be. You cannot properly generalize from the behavior of their protagonists. Their use, the usefulness of all documents, novels or whatever, which are amenable to humanistic interpretation, lies in their very uselessness for pragmatic purposes, in their very resistance to manipulation and moral scorekeeping. For they teach us, as the humanities teach us, that we are, whatever We may do or say to the contrary, human beings.

Why are the humanities of such traditional importance? Because it would seem to be in our nature to forget that we are human beings. Why are the humanities of such overwhelming importance in our time? Because, being tempted to forget that we are human beingsautomated, tranquilized, other-directed, mass-produced, subliminally persuaded— We have taught ourselves to take advantage of the fact and so, in quite cheerful ignorance, to usher in this age of the technological apocalypse. The assembly line looks more and more like a roller coaster. Humanistic understanding cannot transform this age, or us as we live in it, to a Paradise Regained. But only through humanistic understanding-and I would add, humanistic commitmentcan we know what we are that we must transform it: if not to paradise (for no realistic humanist believes we can have that) at least to a world for, to, and in which we will be responsible.

This is, of course, the humanist's ageold complaint. He remembers what Emerson wrote:

> Things are in the saddle, And ride mankind.

And some words of William Blake:

In every cry of every Man, In every Infant's voice of fear, In every voice, in every ban, The mind-forg'd manacles I hear.

Confronting, particularly since the beginnings of the Industrial Revolution, man's seemingly inevitable willingness to pay too high a price for things and his manacles, sensing in himself that inevitable willingness too, the humanist has made it his office to complain thus—or to explicate, in his teaching and his scholarship, such complaints.

It follows, then, that the humanities are a challenge to American education, as the title of this lecture series puts it. "Challenge" means an occasion to which we must rise and a threat to what we think is our well-being. And the humanistic view of behavior constitutes such an occasion and such a threat to all educators, to all men who would be educated-indeed, to all humanists. It tells us that dehumanization is possible, there is a point of no return; that however hard and earnestly-knowing that efficiency is a product of specialization—we strive, each of us to do our special jobs, we do them badly, even suicidally, if we do them in such a way as to forget who and what we are. We can well be the victims of our own success. Humanistic understanding, deriving from the explication of the human situation as it has been recorded in some of the great documents of our cultural heritage, would tell us who and what we are, so that we learn that in victimizing other men, we are victimizing ourselves—that *humanitas* which, at the very least, makes all men one.

I sound urgent; and I mean to. And what I say sounds perhaps like a jeremiad (Repent! Repent!) of a seventeenth-century Boston minister. I must confess that, when I am assigned the sort of subject on which I speak today, when I am told to speak not as a professional humanist, but about the humanism I try to profess-when I am told to do this, I let myself slip into such a mood as that in which I speak to you now. I think of the transformation which we, living as and where we now live, may be about to undergo. And I worry. And now, instead of doing my regular job-which is to guide students in the interpretation and understanding of documents which might at least give them a sense of the price they must pay for what they want out of life—I am asked to talk about what doing that job implies.

But I am not the only one who speaks thus. Listen to the words of a man, deeply humanistic, who professes one of those sciences which has achieved its power and precision through dehumanization properly used:

Nuclear weapons and all the machinery of war surrounding us now haunt our imaginations with an apocalyptic vision that could well become a terrible reality: the disappearance of man as a species from the surface of the earth. It is quite possible. But what is more probable, more immediate and in my opinion equally terrifying, is the prospect that man will survive while losing his precious heritage, his civilization and his very humanity.8

⁸ Quoted from *Realités* by Joseph Wood Krutch, "If You Don't Mind My Saying So..." *American Scholar*, vol. 27 (1958), p. 365.

The words are those of J. Robert Oppenheimer.

And when I quote them to you, I am making a further point: that the humanistic view of behavior is worth holding to precisely as it is, or can or should be, the view of all men—educationists, scientists, theologians, corporation executives, tradesmen, clerks, deans, members of boards of trustees, professors of humanistic studies: all men. Here it is truly a case of all or nothing at all. Because the humanistic view of behavior must allow for the existence of all men, at all levels, of all kinds—so long as they will be men, so long as they will somehow hold to their humanity and assert it.

Many of you, I am sure, know the story, perhaps apocryphal, of Gertrude Stein's death. Dying, she looked up, and said, "What are the answers?" She received no reply. So she smiled, said, "Well, then, what are the questions?" and died. This is how it is with the humanistic view of behavior. Questions, and answers which really are questions. And isn't this what education is in the end? When we find answers and put them into effect, don't we always find that they raise questions? Isn't this what pragmatism and instrumentalism really mean? Isn't this what is truly progressive in education: that it is always questioning? Well, so far as something has gone wrong with education in our time, so far as education is deservedly threatened (let's not use euphemisms like "challenged"), it is because educationists—like so many of their noneducationist academic peers—have forgotten the meaning of instrumentalism and pragmatism. Or maybe some of them never learned the lesson. You all can answer that question better than I can. I can say to you, however, that if educationists are to educate properly, they had better remember,

or relearn, or learn that lesson. Humanistic understanding-by which I mean the exercise of humanistic understanding, not just listening to people like me or reading the work of my humanistic betters-is one means, not the only means, but an essential means, of learning that lesson. For, with its techniques of learning by indirection, of studying behavior as a manifestation of the bumanitas, or inhumanitas, or both, of those who behave-with such techniques it can, and it will, teach us that before we are educationists, or educators, or humanists for that matter, we are humans. It can make life as complicated for us as it really is-in spite of our own wishful tendency to simplify it and to live on the dividends accruing from the simplification. It can teach us what it is to bear the burden of our humanity. And that burden is one we must bear, in spite of all of our efforts to rid ourselves of it, wherever we go, whatever we are.

Let me quote one more authority here speaking of humanistic understanding specifically as it is derived from the experience of art:

While perception of the union of the possible with the actual in a work of art is itself a great good, the good does not terminate with the immediate and particular occasion in which it is had. The union that is presented in perception persists in the remaking of impulsion and thought. The first intimations of wide and large redirections of desire and purpose are of necessity imaginative. Art is a mode of prediction not found in charts and statistics, and it insinuates possibilities of human relations not to be found in rule and precept, admonition and administration.9

The words, of course, are those—the closing words—of John Dewey in Art As Experience.

So you see the reason for my opening ⁹ John Dewey, Art As Experience (New York, Minton, Balch, 1934), p. 349.

remarks about the devious ways of humanistic understanding, its concern for "possibilities," in Dewey's words. For I have, after all, not had to be an Atlas, bearing the world of the humanities on my shoulders alone. I have only had to try to make myself a surrogate for you. For we have all been bearing the burden. And the burden has been ourselves. Since it is a burden which we can't very well put down, we had better understand it: understand ourselves as we bear it.

Humanistic understanding is thus a necessary foundation for all other forms of understanding and for all the forms of action they lead to and the forms of behavior they justify and rationalize. Humanistic understanding leads to knowledge for the sake of knowledge-which is really knowledge for the sake of the knower, for us: since it is we who know. Knowing all things, we must first of all know how to know ourselves in the knowing. The humanistic view of behavior is thus quite simple: It seeks to identify and comprehend all documents -all events, all persons, all actionswhich will lead men to say: There, but for the grace of not being, there go I.

The humanist's motto? Humanity today! Tomorrow the world! And the day after? you ask. That, as they say, is beyond the scope of the humanist's inquiry. For the humanist it is always Now: which, for him, is yesterday as it becomes today in order that it might become tomorrow. It is his vocation to tell you that if you want to live and to understand yourself in living, one way, a necessary if not a sufficient way, to do so is to learn how to know yourself in relation to your knowledge of certain others, who, because they exist in works of art, are just like you, only more so. And, compulsively, he invites you to do so-Now!

process of developing, cleft palate is likely to result—presumably because of the interference of these chemical substances with the normal processes of de-

velopment.

To check this, experiments have been performed in which pregnant mice were severely emotionally disturbed during the critical developmental period of formation of the upper jaw. In such experiments it was observed that 80 per cent of the offspring were born with cleft palates [1].* In a second group of experiments ACTH was injected into undisturbed pregnant mice during the same critical developmental period, and it was found that very nearly 100 per cent of their offspring were born with cleft palates [2]. In a third series of experiments, in which cortisone rather than ACTH was injected, similar results were obtained [3].

It is reasonable to suppose that a similar series of events is involved in human beings where emotional disturbances in the pregnant woman produce changes in the uterine organism which result in observable behavioral disturbances in the postnatal organism. Such behavioral disturbances have been described by several workers [4, 5, 6], but a vast amount of work needs yet to be done in this area in which scarcely a beginning has been made. Fuller exploration of the area will teach us much about the nature of human nature, and may put at our disposal the means of assisting that nature to realize itself to the optimum degree.

Just ten years ago the evidence became available that the fetus is capable of learning in utero. In a classical series of experiments reported in 1948 by Spelt he showed that it was possible to condition a human fetus at seven months pre-

natal age to respond to an original stimulus, in this case to the vibration of a doorbell buzzer from which the buzzerhead had been removed [7]. We have evidence, then, that learning is capable of occurring before birth. How much is the fetus capable of learning? We don't know. Does a fetus normally learn anything in utero? At present the answer to this question must be largely speculative. If the fetus does learn in utero, how does that prenatal learning affect its postnatal behavior? Again, we don't know, but it is important for us to find out. We are at the frontier of a new and important realm of knowledge.

We know that after five months prenatal age, at least, the human fetus can discriminate between certain tastes, for example, between sweet and non-sweet. It can hear and respond to pitch, vibration, and tone, and it is capable of being influenced by a wide range of chemical

and physiological stimuli.

Work emanating from Teachers College, Columbia, indicates that, on the whole, pregnant women fed on an adequate diet have children who subsequently make higher scores on intelligence tests than those whose mothers diets were not adequate during pregnancy [8]. There is a good deal of confirmatory evidence from other sources as to the relation between prenatal nutrition and behavioral development. [9, 10, 11]

The period of birth has in the past tended to be dismissed as simply a transitional phase in the passage from prenatal to postnatal life, but we now know it to be much more than that. Among other things, there is now strong suggestive evidence that the experience of the birth process constitutes a very real complex of factors influencing subsequent behavior, that the conception of

^{*} Figures in brackets apply to references at the end of this article.

the trauma of birth is, in many cases at least, a very real thing, and that in the cultures of the Western world we serve to render the process of birth more difficult for the fetus.

Adjustment of the organism from the prenatal to the postnatal environment is extremely complicated and precarious. Birth is the process by means of which the fetus is prepared not for the assumption of the demands and responsibilities of postnatal existence, but merely for initiation into them. As I have already said, there has been a tendency to regard the period of birth as a mere incident in the passage of the fetus from the microcosmic womb into the macrocosmic world. The knowledge we have acquired in recent years concerning the physiology of birth and something of the effects of the different kinds of experiences undergone by the fetus during this critical period of its development has rendered the older view obsolete.

Thus far it has been possible to establish associations between only the grosser kinds of insults to the fetus during the birth period and subsequent development. Of the artificially produced insults, high forceps delivery resulting in damage to the brain is known, in many cases, to be the direct cause of cerebral palsy, and is highly suspect in quite a number of other disturbances of behavior. [12] Heavy sedation, by robbing the fetus of its already reduced supply of oxygen, has undoubtedly been responsible for the death of many fetuses at birth, and among the survivors the foundations have thus been laid for behavioral disturbances ranging all the way from amentia to the very slightest degrees of mental retardation. The anoxia that is produced as the result of various possible kinds of failure in the functions of the placenta, such as placenta previa or premature cessation of placental progesterone, may produce similar effects.

The few studies that have been made on the relation between exogenous factors at birth and later behavior problems, such as those of Wile and Davis [14] and others [15, 16, 17] indicate that quite marked behavioral disturbances may be associated with the birth experience.

Important as is the understanding of these endogenously and exogenously originating pathologies-and the more we can learn about them the better able we shall be to avoid their often tragic consequences-it is to the variables involved in the normal process of birth and their relation to behavior that we need to pay most attention, for these are the variables that are most frequently operative and about which we need to know so much more than we do at present. But such knowledge as we do have indicates that variations in the normal experience of birth are differentially capable of affecting the later behavior of the person. Phyllis Greenacre, for example, has pointed out that in the economy of birth there is an enormous and sudden increase in sensory stimuli [15], and there must be very considerable differences in the varieties and amplitude of such stimuli as experienced by the newborn. It is reasonable to suppose that such differences in birth experience are reflected in the subsequent behavioral development of the organism. That this is so is borne out by the fact that prematurely born children tend to exhibit somewhat different behavioral responses to the same stimuli from those displayed by normally born children [18, 19]. For Caesarean-delivered children we have virtually no data whatever. Here is another interesting piece of research that cries out to be done.

From what has thus far been said it

should be clear that a wholly new and complex dimension has been opened up for investigation—that of prenatal life—and that the findings of this field must hereafter be taken into consideration when evaluating the behavior of the person.

The intrabirth process brings us to the immediately postnatal period. It is here that the work of the modern students of animal behavior, the ethologists, chiefly associated with the names of Lorenz and Tinbergen, fits in most naturally. These men and their co-workers have shown that fish, birds, and the several mammals thus far investigated are born equipped with releaser mechanisms which cause the organism to respond to certain sign stimuli in a particular manner. Seemingly complex social behavior in these animals is constituted by a relatively few such releaser mechanisms. These mechanisms do not determine what particular stimuli shall release the response any more than genes determine the characters or traits with which they are connected, but a particular releaser mechanism will be activated in a particular manner by a particular class of stimuli. Any object or stimulus within such a class to which the organism is exposed during the appropriate critical developmental period will usually become fixed as the particular stimulusand no other-which will elicit the particular releaser mechanism. This phenomenon is known as imprinting. Lorenz has shown that greylag goslings, for example, accept as their mother the first living creature to which they are exposed, and thereafter refuse to accept any other as such. Freshly hatched mallards will not respond to the visual stimulus, but will respond to the call note, and will accept as mother the first creature whose call note they hear. [20]

The question is, Do releaser mechanisms exist in man? The parental response to the baby has been cited as one such example. It is, however, at the very least questionable whether upon careful analysis this response would not turn out to be dominantly learned.

Is there anything akin to imprinting in man? The Freudian concept of fixation is certainly a close ally. Fixation, in Freud's own words, refers to "a conjunction of impulses with impressions and with the objects connected with those impressions. This conjunction has to be effected very early, is very hard to resolve, and has the effect of bringing the development of the instincts concerned to a standstill." [21] The difference, however, between imprinting in animals and fixation in man is that, in the former, the process is permanent, while in man the process of fixation need not be so.

Tinbergen, and to a lesser degree Lorenz, in the light of the criticism their views have received have modified their conception of the innateness of the releaser mechanism, and are willing to grant that in the ontogeny of all behavior, processes akin to learning may occur. [22] However, no matter what the component of learning may be, there can be no doubt that certain complex patterns of behavior in lower animals are largely, if not entirely, innate; that is they are present at birth. But every animal has a prenatal experience and, in light of our earlier discussion, it should be clear that we cannot be quite certain that all the elements that have entered into the conditioning of the behavior observed at birth were entirely unlearned.

To overcome this difficulty and at the same time help us discover what is going on, Ewer has suggested that the innate behavior we observe at birth be regarded as self-differentiating, as coming

into being as part of the normal development of every individual. On the basis of its innate behavioral responses the animal can learn to the limit of its capacity, "but unless there is self-differentiation of the basis on which to learn, the animal will die, or remain in permanent infantile dependency." [23]

In the human species, in which the dependency period is so prolonged, parental care becomes an indispensable stimulus to the self-differentiating process, and the behavioral equipment for beginning life in the outside world is limited to the automatic functioning of needs which must be satisfied mostly by the behavior of others. The human infant must be fed, kept clean, allowed to sleep and to rest, caused to be active, kept out of harm's way, and protected from noxious stimuli.

This is the situational context in which the member of the species *Homo sapiens* learns to become human in the functional sense of that term. This is the socialization period which, while it differs in its details in every culture and in every family, has precisely the same over-all function in every culture, namely, to enable the individual to become a person who has learned what his relationships are to others and what their relationships are to him—in short, what he owes to or should do for others and what he may expect from them.

Cross-cultural studies in personality development are too familiar to need discussion here, but one should at least pause to underscore the fact that the findings of all the relevant sciences point to the important conclusion that no matter what the genetic limitations of individuals may be, within the range of normal variation what the average individual in any one ethnic group can do, can be done by the average individual

in any other ethnic group, provided his group is afforded adequate opportunities. And also that by far the most important complex of variables in the making of a human being is the cultural environment in which he is nourished and caused to grow. Allowing for all genetic differences between individuals—and those differences can be very considerable—the culturalization process, the social differentiation, that the individual is made to undergo exceeds all else in importance.

It is here that the analysis of the concept of basic needs has received some attention. The basic needs are those drives of the organism that must be adequately satisfied if the organism is to survive. They are the need for oxygen, food, liquid, rest, sleep, activity, bowel and bladder elimination, protection from danger, and the avoidance of pain.

Observe that sex has been omitted from the list of basic needs. Obviously the organism can survive without satisfaction of its sex drive, but the species cannot; hence the enormous action specific energy which is attached to this non-vital basic need. Under conditions of stress, such as emotional disturbance, physical starvation, or illness, the energy of the sex drive is the first to decline.

The most important of all the basic needs is the need for love. Love is a somewhat curious entity for a behavioral scientist to be considering, and that, indeed, is why it has been considered by so few behavioral scientists. I am not speaking for behavioral scientists in general. I am speaking for only a handful of such scientists as Spitz, Bowlby, Maslow, Foote, and a few others [24, 25, 26, 27, 28, 29].

Love is still a four-letter word to most scientists, not excluding most behavioral scientists, who haven't yet experienced the shock of recognition, and are therefore likely to raise their eyebrows at any scientist who has, and to regard him as a sort of Elvis Presley who is causing his cerebral hemispheres to comport themselves in a somewhat dubious manner. This is all the more surprising because it is what Freud was talking about during the greater part of his life, and Freud's influence on the behavioral sciences has been tremendous. The very important work on this subject by Adler [30] and Ferenczi [31], not to mention others, seems to be almost forgotten. Whatever the reasons for this may be, there is now sufficient evidence available from a variety of sources to prove beyond any question that love stands at the very center of the system of basic needs, and its satisfaction is fundamental if the organism is to develop in health. Love stands like the central sun of our solar system, holding all the basic needs in their courses as they revolve about it. The Elizabethan dramatist George Chapman puts it very well:

I tell thee Love is Nature's second sun, Causing a spring of virtues where he shines.

It would seem that the most remarkable truths concerning human behavior can be arrived at by methods unlike those of the behavioral scientist. But then poets belong to a special class of visionary humanity. Behavioral scientists must plod behind them by scores of years, even centuries.

SUMMARY OF FINDINGS

It has been found that unless children are adequately loved during their first six years all sorts of harm may be done to their development as psychophysical organisms—and that much of this damage is irreversible. The principal disorders produced assume a very recogniza-

ble form, consisting chiefly in the inability of the individual to love or to relate himself adequately to others. Such individuals have been called "the institution child," "the affectionless character," or simply "the cold fish." The Western world, unhappily, is populated by far too many persons of this kind, and I put in the judgment implied in the word "unhappily" because I feel strongly that among the principal tasks of the educator must be the prevention of such disasters being visited upon the individual, by means of the proper teaching not only inside the classroom but long before the child arrives at school age. I should consider a discussion such as this entirely valueless unless it contributed to this end, for the meaning of a word lies not in the sound it makes but in the reverberations in the form of the action it produces.

Whereas the lack of love has been found to produce all sorts of disordered conditions—diminution in capacity for abstract reasoning, narrowness of attention span, inability to relate, and the like—the provision of adequate love has been shown to be the best of all the stimuli to

healthy development. It is no longer a theory but a matter of established fact that most functional behavioral disorders are caused principally by the absence of love suffered during the person's first six years. By the time the educator formally comes upon the scene, most of the damage has been done. But this is so only because we have consistently failed to recognize the role of the educator in the making of human beings. Indeed, because we have regularly failed to appreciate the nature and meaning of education itself. We need to rethink and revalue our conventional conception of education and our explicit function as educators.

What is the function of education? To help create healthy human beings. By health, I mean the ability to love and the ability to work. Training in the three R's is to be regarded simply as instruction in the techniques subserving the functions of the healthy human being. Our principal troubles at present result from the fact that we confuse instruction with education. Instruction is not education. Today more than ever we in America need to be quite clear upon the nature of the difference, for in the hysterical attempt to outdo our bogeymen in the design and manufacture of satellites there is danger that the distinction may be altogether submerged by the concentration on technology. To be human ought to mean to be humane first, and to be instructed should always be secondary to that. It is vastly more important to be civilized than to be clever -meaning by "civilized" behaving in a humane and refined manner. A humane man is unlikely to misuse his knowledge; a merely instructed man is very likely to do so. But this is only one reason for insisting upon recognition of the distinction between instruction and education. There are others, all of which can be subsumed in the statement that it is only through a soundly based system of education that human beings can be enabled to realize their best potentialities for being human.

By "a soundly based system of education" I mean one that is based on the findings of the anthropological and behavioral sciences concerning the nature of human nature, and the functioning of that human nature in the context of hu-

man society.

Summarized very briefly, those findings are that man evolved in a manner such that a high premium was placed upon cooperative behavior on the part

of the individual. As greater demands were made upon intelligence those individuals who relied less on instinct and more on intelligence were favored in the struggle for survival, so that eventually man became a virtually instinctless creature who must learn most of what he does in relation to his environment. To negotiate that environment (cultural as well as physical) he requires an extended learning period. For the first half dozen or more years of this learning period he is wholly dependent upon other human beings, and it is what those human beings do to him during his formative years that largely determines the personality of the individual.

Analysis of the nature of human nature tells us that the human organism possesses an inbuilt value system in the form of the basic needs. These represent the inner necessities, the inner requiredness, of the organisms, which must be satisfied if the organism is to develop in health. The operational form which these basic needs take is not consciously so much the need to survive as the need to relate-to relate to others and to be related to, which, in somewhat deceptively plain English, means the need to love and to be loved. To love means to behave in a manner calculated to confer survival benefits upon others in a creatively enlarging manner.

I read all the relevant evidence as indicating that the satisfaction of the organism's need to love and to be loved is the key which opens all the doors to its healthy development, and that insofar as this satisfaction is inadequately achieved the behavioral development of the organism is disturbed. To come to the point at once, we conclude that the function of education should be principally to help the individual realize his potentialities for being a healthy human being,

that is to say, one who is able to relate himself in a harmonic and creative manner to others. To enable him, in short, to function as a warm, loving human being. This should be the whole meaning and purpose of education—anything that is not this is not education. We have, then, in light of the facts, to ask ourselves as educators whether we are going to remain part of the problem or to make ourselves part of the solution.

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Mass Education May Lose the Individual*

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THE three papers that precede this are different from one another, yet they make a single, central point about men and the world of men. The writers of the three preceding papers have this to say to us: the everlasting conflict in human affairs is between the good of the individual man and the apparent need of his society; love, viewed in Haroutunian's sophisticated way (caritas), or as Pearce's humanitas, or as Montagu's literal necessity, is forever challenged by death-dealing opposite. Haroutunian sees the opposite as denial of God, and therefore of oneself and others. Pearce sees the opposite as a denial of the essential humanity of human beings. Montagu sees the opposite as a kind of giving way before the assaults of hatred and fearfulness.

The challenge of these disciplines to education is thus implied. We educators are forever tempted to lose the individual in the mass. We are reminded by Haroutunian, Pearce, and Montagu that to do so is to subvert the divine will, to deny the individual's humanity and thus

*This article is based in large part on a panel discussion that followed after the three papers read by Haroutunian, Pearce, and Montagu. The panel participants were Professors Millie Almy, James McClellan, and Francis Shoemaker of Teachers College, Columbia University; the moderator was Arthur W. Foshay.

our own, and literally to destroy him. The challenge could scarcely be more blunt. However, before we accept it, we must consider its relevance. Are we in fact in more than the usual danger of losing the individual?

I will submit that we are. The big drift in contemporary education is precisely in the direction of herding and classifying people; for example, the offering of whole courses by television, and the tendency of too many of their promoters to deny or overlook the fact that human values are at stake in the massive schemes they promote. Or the uncritical acceptance of mass testing on a national basis, without regard for the fact that taking such tests is itself a part of the education of the student, and is thus subject to every moral concern that applies to the rest of education. Or, again, the proposal of massive administrative plans that assume that the curriculum will be improved if we simply regroup the students-again with irritated denials that any human values are threatened by such dehumanizing treatment of people.

The main current in education, aided by the eager support of some college admissions officers, some military officers, and in general by those who think that the world's ills are to be met by schemes of classifying others, is toward teaching the student that he is an item with certain permanent characteristics, not that he is a man with certain possibilities.

In the face of this, the writers of the preceding papers dare us to buck the tide. The challenge of the humanist, the theologian, and the behavioral scientist to the educator is that he educate: that he single-mindedly pursue the development of the individual person. When the school becomes a giant screening device instead of a place where the young are invited to grow up-when, that is, the individual is considered mainly in terms of his mass-relevant attributes instead of in terms of his personal possibilities then the people rejected by the screening quickly disavow any responsibility for the public weal.

Where are we to find the strength for resisting this tidal wave of heavily financed dehumanization? Haroutunian, Pearce, and Montagu imply that we may find the strength within our culture itself. Our hope must rest on the vitality of our fundamental beliefs, expressed in our religious tradition, our humanistic tradition, and our scientific tradition. These traditions say that each man is valuable in his own right, that "... when a man loves his neighbor as himself, he loves not a conjunction of roles in an animal, but a fellow man, for whom his love . . . is life itself and joy," to quote Haroutunian. They say that we must first of all recognize the tendency of mankind to deny his manhood, and the necessity therefore that people experience personally the joy and tragedy that accompany the confrontation of man with himself.

What these writers offer, then, is a hope, based on real knowledge of the agony it entails, that by an effort of will we can once more claim our own souls. Perhaps the battle between the individual

and the system, aggravated by these fearful times, can once more be won. We can at least hope, if we draw on the moral wellspring of our cultural tradition, that in the schools the human being will be treated with the reverence that is rightly his. We can hope to find within ourselves as educators the compassion we need as we view the shortcomings that plague us all. Perhaps the hope that springs eternal, springs also within us.

Miss Almy, in commenting on Mr. Montagu's paper, reiterated that love is not enough. Beyond love there lies the need for skill and discipline if the human creature is to fulfill his humanity. In the same sense, hope of itself is not enough. We educators must act, if the hope is to become more than hope. What must we do?

First, we need to teach children to view themselves in a universal context; to see themselves as Haroutunian would, as creatures, not merely as beings. This is done when we take children to be capable of making: making ideas, making artistic statements (as in the arts), making things. For men are never more like their Maker than when they themselves attempt to be creative. Having attempted to create, a man can often find peace within himself and compassion for others. Moreover, we can use literature, the arts, the sciences, and the greatest religious writings for this same exalted purpose, this being the very purpose for which they are intended.

Second, we can teach children to "confront their own humanity," if we intend to. As Pearce points out, this confrontation provides the central theme of much of the greatest writing ever attempted, whether in *Babbitt* or *Oedipus*, Eliot or Shakespeare. But there is more. In addition to the humanists, the behavioral scientists ask us to use the skills

and information they have developed in bringing about and surviving this confrontation. Dealing with our own humanity so that we may be more human provides a reason that rises above sentimentality for practicing the many skills of human relations, including the rapidly developing body of skills and insights in the field of group behavior.

Third, we can teach children to understand the practical effects of love and hate. Montagu implies an aphorism: love prolongs life; hate hastens death. It comes as something of a surprise that this old, old belief is susceptible of experimental verification. We could, if we chose, introduce such experimentation into school. We could help children to become aware of the self-enhancing and self-destructive effects of the emotions. This is the twentieth century, not the eighteenth; we have known for two generations that the emotions are to be used and controlled, not ignored or suppressed. Montagu implies that science has reached a point at which such selftraining is a practical possibility.

In short, these three writers urge upon

us the importance of maintaining the school as an island, if necessary, where the individual man receives his proper honor, in a world that increasingly dishonors him, in a world that repels individuality. They speak to us of the high seriousness of our calling as educators. They call upon us to recapture the person—the creature, man—as the center of the school.

In responding to their challenge, as we surely do (for it echoes the challenge from within us also), we recognize the risk we undertake. We risk the ridicule of those who consider things other than preserving the humane qualities of the school the most urgent need of these times-those who, for example, would "redeploy" teachers, mass classes in the name of economy, segregate children into the more and the less worthy and valuable to the world, practice increased specialism at the expense of a humane and general education, and in general make the man fit the mold of their own fears and aspirations, instead of making the mold fit the developing human being we educate.

ences. The plateau effect already noted, between eight and nine years of school attendance, characterized the nativewhite males born in the North and West fifty-five years of age and over in 1950. Each ten-year group born in the South lagged from nearly a year to 1.7 years behind the others, and the grade-school graduation plateau characterized the Southern-born from age thirty-five to sixty-five. With the females, completion of grade 8 was the norm for all but those seventy-five and older, and the differences among the regions exceeded one year in only one group, those forty-five to fifty-four years of age.

Native females of the North and West reached the completed high school plateau between thirty-five and forty-four years of age; males between thirty and thirty-four. From this age group downward to the eighteen-year-olds and nineteen-year-olds the differences between those resident in the North and in the South widen. For these years they range from 1.4 to 2.6 years for the males and from 1.0 to 2.3 years for females, and average 1.8 and 1.4 years respectively. The gap is closing, however. It averaged only 1.25 years for those eighteen to twenty-one, and in the years of normal high school attendance was under a year.

The explanation of these facts seems clear. The southern states lagged behind others in raising the legal school-leaving age to include at least completion of junior high school or more before a pupil was permitted to enter the labor force. Nor must the less advantageous economic position of the South (until the rapid industrialization of recent years) be forgotten. With its lower percapita income the South also had the burden, self-imposed it is true, of supporting two systems of education, one for white students and one for Negroes.

Foreign-born or foreign stock white. One of the possible surprises in the 1950 census data relating educational status to ethnic characteristics is in the record of those of foreign or mixed foreign and native parentage. Among males, whether the parents were born in northwestern or central Europe, these groups equaled or slightly surpassed the record of the native-born male of native parentage from age eighteen to forty-four. This is also true of females between eighteen and thirty-four whose parents came from northwestern Europe and of those eighteen to twenty-nine years of age who have central European parentage. Southern European stock males lagged slightly behind the native white males, the gap increasing rapidly after age thirty-four.

Only 5.2 per cent of the native-born white people twenty-five years of age or more of foreign or mixed parentage were classed as functionally illiterate, that is as having completed less than five years of elementary school. In 1950, the comparable proportion for those of native parentage was 6.8 per cent. Indeed, the proportion of the native-born of foreign stock who had completed eight years or more of school by 1950 was 79.6 per cent as against 75.9 per cent for nativeborn of native parentage. Only when high school graduation or better is considered do those of native parentage make a better record, 38.1 per cent against 36.2 per cent.

Foreign-born lag. For the relatively small number of foreign-born, only 11 per cent of the total population twentyfive years of age and over in 1950, the story is different. Almost one-tenth, 9.8 per cent, reported no years of schooling in 1950 as against 12.1 per cent in 1940. In this group males in both years made a better record than females. This may be a reflection of the cultural trait in

some societies that holds that women need less education than men. However, when functional illiterates are considered, the females have a slight advantage, less than a percentage point; 16.4 per cent of the foreign-born were in this category in 1940, 15.3 per cent in 1950.

Another factor accounting for the data presented is the considerable immigration to the United States from nonquota countries of people who have had little or no educational opportunity. For example, the Mexicans have come into the southwestern states in large numbers. One generalization seems clearly warranted from these data. The European migrant came to this country to improve his position and standard of living and quickly acquired the conviction that if his children were to have a better life than their parents, full advantage must be taken of the educational opportunities the United States afforded. The data further show an almost amusing shift in the cultural pattern. Among the foreignborn and those of foreign stock in most but not all age groups from thirty-five up, the women lagged behind the men in the median number of years of school completed, probably a reflection of the European attitude toward the place of women. Below age thirty-five the pattern tends to conform to that of people of native parentage, with females equaling or slightly exceeding the males.

The college story. At the other end of the educational scale from illiteracy stand those who have had college experience. Here the 1940's showed a dramatic gain. By 1950, for the native white individuals of native parentage, 15.6 per cent over twenty-five years old had had some college experience; almost half, 7.0 per cent, four years or more. This contrasts with 12.6 per cent in 1940, pro-

portionately a gain of close to 25 per cent. Comparable improvement occurred with the other nativity groups, the total with some college experience among the native-born of foreign parentage going from 9.8 per cent in 1940 to 13.2 per cent in 1950, and the foreign-born white from 4.2 to 7.4 per cent. In both these groups the males showed a decidedly higher proportion than the females. In 1950, 2.1 per cent of the Negro population and 4.8 per cent of other nonwhite people had achieved college graduation or better. The 1957 data vary only a little from those of 1950. The sample is too small to warrant discussing changes by sex and ethnic groups.

Terminal year of schooling advances. One of the most interesting changes between 1940 and 1950 relates to the most frequent terminal year for schooling. In 1940 the terminal point was clearly the end of what used to be called grammar school, that is, either grade 7 or grade 8. For the three nativity groups-native white of native parentage, foreign or mixed parentage, and foreign-born-34.1, 42.0, and 36.4 per cent respectively completed their formal education in one of these grades. For the first two groups, those entering but not finishing high school was the next highest category. In each group slightly more than onefourth completed high school; slightly less than one-fifth entered it, but left before graduation.

Educational attainment gained 1940-1950. It is clear from these data that decisive gains were made between 1940 and 1950 by both white and nonwhite of both sexes, whether of native, foreign, or mixed parentage, measured by the number of years of schooling completed by those twenty-five or more years of age. The over-all nationwide results are summarized in Table 2.

TABLE 2

MEDIAN NUMBER OF YEARS OF SCHOOL COM-PLETED BY WHITE PERSONS 25 YEARS OF AGE AND OVER BY NATIVITY, PARENTAGE, AND SEX FOR THE UNITED STATES, 1950 AND 1940

CLASSIFICATION	1950	1940	GAIN IN YEARS
NATIVE OF NATIV	E		
PARENTAGE			
TOTAL	10.3	8.9	I.4
Male	9.8	8.7	Ι.Ι
Female	10.7	9.1	1.6
NATIVE OF FORE OR MIXED PAREN TOTAL		8.6	•
Male		130	1.3
Female	9.8	8.6	1.2
1 chiale	10.0	8.7	1.3
FOREIGN-BORN			
TOTAL	8.2	7.3	0.9
Male	8.2	7.3	0.9
Female	8.2	7.3	0.9

This gain of better than a year for all groups except the foreign-born has several explanations. It is due in the first place to the effect of state legislation which raised school-leaving age from twelve or fourteen, which it was in some states in the first quarter of this century, to sixteen or high school graduation. Then too, older people, who as a rule had had less formal education than following generations, had died. Their places were taken by those who had remained longer in school. The effect, moreover, of better enforcement of school attendance laws is seen in the decline in the proportion of adults who are actually or functionally illiterate.

Nonwhite Groups. Nonwhite groups include Negroes (about 95 per cent), Indians, and other races, largely oriental. The median number of years of school completed by those over twenty-five years of age in these groups, as of 1950, is given for selected ages in Table 3.

There has obviously been steady progress among all these groups. By 1957 the median for all nonwhite had gained about a year—to 7.7. That the Negro will improve rapidly in the future is indicated by the fact that males of this group fourteen to twenty-four years of age have already finished 8.1 years of school, females 9.0—both figures almost two years beyond the 1950 record for Negro adults twenty-five and over. Considering urban America alone, the 1950

TABLE 3

MEDIAN NUMBER OF YEARS OF SCHOOL COMPLETED BY ETHNIC GROUPS AND SELECTED AGE GROUPS BY SEX: 1950

AGE ALL		NEC	GRO	INI	DIAN	OTI	HER
	NONWHITE	Male	Female	Male	Female	Male	Femal
25 years and over 25-29 45-54 65-74	6.8 8.7 6.2 3.8	6.4 8.2 5.8 3.8	7.2 8.9 6.5 4.3	7.2 8.7 6.4 3.4	7.0 8.8 5.8 2.5	8.7 12.4 7.3 7.3	11.4 12.4 8.5

median for Negroes of the age group fourteen to twenty-four is about a year above the national figure—9.0 years for males, 9.9 for females. In the cities of the Northeast, where Negroes fourteen to twenty-four years of age make the best record, the medians in 1950 were 9.7 years for males, 10.4 for females. Obviously many of these persons have not completed their schooling. In a number of cities outside the South, only a few tenths of a year separate educational attainment of Negroes twenty to twentyfour years of age from that of the total predominantly white population. Conversely, in the urban Northeast only about 4 per cent of Negroes fourteen to twenty-four are functional illiterates, whereas for the nation as a whole 6.8 per cent of native white people of native parentage fall into this category.

A comparison of the Negro youth of 1950 with those over sixty-five years of age shows dramatic progress and, it is important to note, at an accelerating rate. In the South about half, 49.2 per cent, of the Negro males born between 1905 and 1909 were functionally illiterate. In contrast, of those born in 1931 and 1932, less than one-fifth, 19.4 per cent, fell into this category. Of the older group barely one in twenty, 5.4 per cent, had graduated from high school; of the younger group better than one in seven, 14.7 per cent. Outside the South, 13.5 per cent of the older, 31.3 per cent of the younger group were high school graduates. The proportion in the South had almost tripled, in other regions better than doubled. Among white people in these age groups the increase in the proportion of high school graduates was 75 per cent in the South, elsewhere 85 per cent.

Puerto Rico's Record. One other significant comparison may be made be-

cause it concerns the largest nonmainland territory of the United States, the Commonwealth of Puerto Rico with its more than two million inhabitants. Puerto Ricans in continental United States twenty-five years of age and over have completed from two to three times as many school years as those in Puerto Rico itself, and make a considerably better record than white persons with Spanish surnames in the five southwestern states for which the data for such persons are separately tabulated. The comparison follows.

	YEARS OF SCHOOL COMPLETED			
CLASSIFICATION	Male	Female		
Puerto Ricans in U. S.				
TOTAL	8.2	8.0		
Born in Puerto Rico	8.0	7.5		
Born in United States	9.8	IO.I		
Living in Puerto Rico	4.I	3.3		
White persons with Spanish surnames in U. S.	5.4	5.5		

Here again the conformity to the pattern of lower educational status for the female changed among the native-born of Puerto Rican parentage to a slight advantage over the male. That the Puerto Rican record will also improve is shown by the record for number of years of school completed by those fourteen to twenty-four years of age-8.8 years. This is almost a year more than for those twenty-five to forty-four, and obviously not all in the younger age bracket have completed their formal education.

EDUCATION AND RESIDENCE

It is quite clear from an examination of the census that the level of education attained by adults varies according to the region in which they live; according to whether they live in rural or urban territory, and within urban territory according to whether the population lives in a central city or in the suburbs. This is but to say that localities of varying types are selective in the population they attract in terms of the educational attainment. Of course this is not the sole explanation for the differences discussed in the paragraphs below. They are also reflections of the attitudes of a region or a community with respect to the desirability of high educational status and of the demand for training that the economic institutions may make upon the labor force.

Regions. Taking the four major regions of the census-Northeast, North Central, South, and West-it is clear that the best-educated population lives in the West, where in 1950 the average adult had completed 11.2 years of school, better than 1.5 more years than the Northeast's 9.6. The North Central states were a close third with 9.4 years. The South is in last place with 8.6 years. The spread between high and low regions is therefore 2.6 years. This spread has been increasing. The regions ranked in the same order in 1940, save that the Northeast and North Central states were equal, but the spread was only 1.4 years at that time, even though every region showed an improvement in 1950 over 1940. Table 4 presents data on this point.

This disparity among the regions in the rate of progress toward high school graduation as the median level of educational attainment for the American adult population has existed for over a generation. When those sixty-five to sixty-nine years of age are compared it is evident that, except for the South, the difference among the regions was only two-tenths of a year, though southern males lagged

by two years and females by one and a half.

TABLE 4

MEDIAN NUMBER OF YEARS OF SCHOOL COM-PLETED BY TOTAL POPULATION IN EACH REGION, 1940 AND 1950

	- GAIN	
1940	1950	:=====
8.7	9.6	0.9
	9.4	0.7
8.0	8.6	0.6
9.4	II.2	1.8
	8.7 8.7 8.7 8.0	8.7 9.6 8.7 9.4 8.0 8.6

A partial explanation of this fact lies in the migration patterns of our population. Here the West has perhaps profited most, since many studies indicate that the better-educated migrate farthest. This, however, is only a partial explanation, and it is quite clear when the data for the groups twenty-five to twentynine years old are examined that the laggard regions, in comparison with the West, are catching up. Apparently the West simply began its surge toward high school graduation as the median level for the population a decade earlier than the other regions. This conclusion seems warranted from the data presented in Table 5.

Differences by Size of Community. Can the differences in educational status among the major regions of the nation be related to the degree of rurality of the respective regions? The South, for instance, has approximately half the nation's farm population. It is well known that, measured by such usual indices of educational administration as per-pupil costs, teacher salaries and training, and length of term, rural education has

TABLE 5

MEDIAN NUMBER OF YEARS OF SCHOOL COMPLETED BY TOTAL POPULATION 25 TO 29 YEARS OF AGE, 1940 AND 1950, BY SEX AND REGION

REGION	M	ALE	GAIN	FEMALE		6171
	1940	1950	GAIN	1940	1950	GAIN
Northeast	10.3	I2.I	1.8	10.4	12.2	1.8
North Central	10.7	12.2	1.5	11.3	12.2	0.9
South	8.5	IO.I	1.6	9.1	10.8	1.7
West	12.0	12.4	0.4	12.2	12.4	0.2

lagged behind urban. Do rural people, in addition, attend school fewer years than urban? This seems to be the case. The median number of years of school completed by the total population in 1950, distributed according to rural and urban residence, shows that in every region the urban record is better than the rural nonfarm, and that in turn is better than the rural farm. Table 6 presents the situation.

TABLE 6

MEDIAN NUMBER OF YEARS OF SCHOOL COM-PLETED BY PERSONS 25 YEARS OLD AND OVER FOR URBAN AND RURAL POPULATION BY REGION: 1950

REGION	URBAN	RURAL NONFARM	RURAL FARM
Northeast	9.7	9·3	8.8
North Central	10.2	8·9	
South	9.7	8.2	7·3
West	11.9	10.0	9.0

The disadvantage of the two rural groups as compared with the cities is more serious than appears from this table, because the gap appears to have widened up to 1950 although strenuous efforts have been made in the past quar-

ter century to strengthen rural education. Despite better-trained teachers and lengthening school terms in rural areas, the holding power of the rural school increased only slightly, even when the white population is separately considered. For those sixty-five years of age and over, less than a year separates the farm from the city population. For those twenty-five to forty-four years of age, the difference is 3.4 years for males and 2.4 females. Migration from farm to city is one explanation. It is probable that the relative decline in the educational attainment of farm people has been checked. When only those twenty-five to twenty-nine years of age are considered in terms of the 1957 survey it develops that farm males have finished 10.5 years of school, females 12.0. This is a gain of exactly two years since 1950 for females of this age group and of 1.5 years for males. The group twenty to twenty-four years old for the total farm population shows a further gain, 1950-1957, of 1.4 years.

The median number of years of school completed by adults may, like any average, conceal significant trends. In presenting the data for urbanized areas, or, to use the census term, standard metropolitan areas, the 1950 census distributed

the population between the central cities and their suburbs or fringe. When the educational data for these two parts of our urbanized areas are examined, it develops that the suburban white population is the better educated. Among nonwhite people the central cities hold a slight advantage. There is doubtless more opportunity for them in the central city than in the suburb. The nonwhite suburban result may be affected by the number of domestic servants employed in such communities. This comparison is given in Table 7.

TABLE 7

MEDIAN NUMBER OF YEARS OF SCHOOL COM-PLETED BY POPULATION 25 YEARS OLD AND OVER IN CENTRAL CITIES AND SUBURBS OF URBANIZED AREAS BY COLOR AND SEX: 1950

COLOR AND SEX	CENTRAL CITIES	SUBURBS
WHITE	10.3	11.3
Male	10.2	11.2
Female	10.4	11.4
Nonwhite	8.1	7.9
Male	7.9	7.6
Female	8.3	8.1

Here again the medians conceal interesting trends. The data are too voluminous to present by sex for all age groups and every educational category for every size group of urbanized areas. Total figures are given for selected educational categories for the total population twenty-five years of age and over in Table 8 and by regions in Table 9.

It should be pointed out that the rural-urban comparisons possible from Table 8 in no sense mean that the farm population is bereft either of leadership or of professional service. The village or town, since the coming of the automo-

bile and the hard-surfaced road, has increasingly become the capital of a new village-centered or town-centered rural community, where the consolidated school is located and where its teachers and other professionally trained persons such as doctors, lawyers, and nurses live and where many of the social activities and organizational contacts of the farm

TABLE 8

PERCENTAGE OF TOTAL POPULATION 25 YEARS OLD AND OVER IN SELECTED EDUCATIONAL CATEGORIES BY SIZE OF PLACE: 1950

	COMI	ARS OF SCHOOL PLETED BY INDI- ED PERCENTAGE DF POPULATION			
SIZE OF AREA	Less than 5	8	12	and over	
URBANIZED 3,000,000 and over 1,000,000–3,000,000 250,000–1,000,000 Less than 250,000	9.2 8.3 8.3 9.3	21.1 17.7 17.6 17.5	23.3 23.7 23.0 22.5	7.5 7.7 7.2 6.8	
NOT URBANIZED 25,000 or more 10,000–25,000 2,500–10,000 1,000–2,500	9.1 9.7 10.9	18.0 18.3 19.3 21.5	21.9 21.2 19.9 19.1	7·3 7·0 6·4 5·7	
Less than 1,000 (incorporated) Other rural	9.5 15.4	26.5 23.4	17.7 14.4	4.9 3.1	

population center. While not all "professional, technical and kindred categories" of workers are college graduates—witness among others, professional athletes most of them are. In urbanized areas of 250,000 population and over and in cities outside urbanized areas of 10,000 and over, from 10 to 11 per cent of the labor force fall in the professional and technical category. Even in the incorporated village of less than 1,000 inhabitants 9

TABLE 9

MEDIAN YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OVER, TOTAL AND NONWHITE BY URBAN OR RURAL RESIDENCE AND BY REGION: 1950

	NORT	NORTH CENTRAL		SOUTH		WEST		
RESIDENCE	М	F	M	F	M	F	M	F
Total								
Urban	9.7	9.7	10.0	10.3	9.4	9.9	11.5	12.0
Rural nonfarm	9.0	9.8	8.8	9.3	8.0	8.4	9.3	10.6
Rural farm	8.7	8.9	8.6	8.9	6.9	7.7	8.8	IO.I
Nonwhite			•	0.6		120 11 121	0.0	82 80
Urban	8.3	8.5	8.3	8.6	6.4	7.I	8.8	9.5
Rural nonfarm	7.6	8.2	7.6	8.1	$4 \cdot 7$	5.6	7.4	7.2
Rural farm	6.5	7.9	6.7	7.6	$4 \cdot 3$	5.4	6.7	7.2

per cent of the labor force are so classified, as are 9.3 per cent in centers of 1,000 to 2,500 population, twice the comparable proportion for the population classified as "other rural." But such persons serve in communities of which the farmer is a part. When sociological communities are considered as against the civil divisions of government which the census must use, the relative disadvantages of the rural population, although existing, is by no means so great as might be inferred from the data presented by the census.

SUMMARY

Despite the current barrage of criticism of our schools, the forbidding looking columns of figures in the 1950 United States Census record substantial progress on all items which are measured by it. High school graduation has become the normal expectation for American youth,

an improvement of almost two years over 1040 and about four over a generation ago. This improvement has gone on in all regions and in both city and country, though at varying tempos. In it the Negro group has shared disproportionately. If present trends continue, the lack of equality of educational opportunity which the Negro has suffered will disappear in the not too distant future. Large numbers and proportions of American youth are gaining college experience. The tremendous gains in adult education, which the Census does not attempt to measure, appear to be a permanent condition of our society. Judged by the behavior of the American people, their faith in education and their desire for it are both at a high point. It is beyond the power of the data available to measure the quality of this education, but that quality is affected by social and economic conditions.

-REVIEWS

Higher Education in Transition, by John Brubacher and Willis Rudy. New York: Harper and Brothers, 1958. 494 + viii.

American educational history remains a relatively unexplored frontier. Into its regions, where lies a mass of unorganized data concerning higher education, a few giants have ventured. Morison has mined the mother lode at Harvard, Curti and Carstensen followed briefly the central vein at Wisconsin, Hofstadter and Metzger gathered choice nuggets in the stream of academic freedom, Butts and Schmidt have searched for ivory in the jungle of liberal arts colleges, and Ross and Eddy have partially reaped the golden grain of the landgrant colleges. A handful of other competent explorers have briefly homesteaded at the site of specific institutions, and the biographies of such early pioneers as Eliot, White, and Gilman are available. The records of all such lonely venturers into the frontier have fallen into the hands of Professors Brubacher and Rudy, who now attempt an over-all map of the territory.

Such a map has long been needed; the general cartographer, Charles Thwing, left the field a half-century ago. Quite aside from its particular merits, which are considerable, Higher Education in Transition is thus without a single rival. If one wants to get a general view of the history of American higher education, he simply must turn to this volume. Where else can he find, within a single binding, a description of three centuries of higher learning in which he is told of curricular struggles, administrative problems, student life, and the attempts to define the distinctive functions of liberal arts colleges, state universities, professional schools, and extracurricular activities? Let us, then, all gladly acknowledge our debt to these authors; those of us who know the chaotic state of source materials in the field will also acknowledge our respect for the industry required in examining so wide a range of sources and the imagination needed in imposing a reasonable order on the material. Having said this, a reviewer is entitled, presumably, to express his own subjective delights and misgivings about the book.

These authors are at their best when they focus clearly on the development of specific ideas and when they select discrete institutions or ideological groups to epitomize those ideas. For example, in discussing the idea of a state university they look in considerable detail at Virginia, Michigan, Cornell, and Wisconsin, each of which is portrayed as representing a specific element in the evolution of the general concept. In discussing the development of the graduate school, Johns Hopkins becomes the prototype. There is, of course, a danger that through such a treatment one may easily over-generalize or seem to give too little credit to other institutions. But there is compensation; through this technique sufficient detail can be brought in that at least one institution comes to life.

In those chapters made up of reports of a single incident here, a faculty report there, and a statistic from some other place, one often senses a mosaic of nothing living and whole. The story is dehumanized and disembodied. There is sharp contrast, for example, between the chapter on the state university and the chapter on fraternities and athletics. Even greater is the contrast between the latter chapter and the work of Hofstadter and Metzger on The Development of Academic Freedom in the United States. In the academic freedom story, people with whom we can identify come to

life in situations we can easily reconstruct. One reads on avidly to see what will happen to the characters in the plot and even, through empathy, to himself. Though one is inclined to protest that, after all, Hofstadter and Metzger were writing a specialized study in which there was greater room to work, nevertheless the Brubacher and Rudy volume does come to life in the same way when the authors select for emphasis a single institution, person, or ideological struggle. Perhaps a better picture of the whole would emerge if fewer representative cases were elaborated and humanized rather than an attempt made to cover the field in an encyclopedic manner.

This is a problem which has trapped many historians, and one can forgive these authors if they do not always escape it. They are also caught with good company by another trap into which many educational historians have stumbled. One is more surprised to see them caught here, since they do report the data needed to avoid it. This is the assumption that earlier educational institutions can be classified in the same elementary school, secondary school, and higher education categories we now recognize. Brubacher and Rudy occasionally cite authorities who considered the colonial colleges secondary schoolsin my judgment the more adequate conception-and who recognized that until the last half of the nineteenth century the academies, high schools, normal schools, seminaries, and colleges were competing institutions. Only gradually, and quite recently, was the secondary school slid in between the vernacular grammar school and the college to make an articulated system.

Since the authors at times explicitly recognize this fact, one is amazed to see them repeat the old assumption that certain subjects were *dropped down* into the secondary school. They note, for example (p. 13), that in 1720 geometry was studied in the senior collegiate year at Yale, that by 1743 it was offered in the sophomore year, that by 1825 it had become a freshman study, and that by 1855 it was required for admis-

sion. Now I have not checked the increasing age of Yale students in this period. The data Morison gives us on the age of Harvard students in the seventeenth century make it clear, however, that most students then took geometry at the approximate age of current high school sophomores-perhaps they were as young as fifteen, maybe a year beyond that. We also have the complaints of Francis Wayland against sixteen-year-old college students in the 1830's. A casual reader of Brubacher and Rudy might well infer that in terms of age and previous years of schooling the scholar of 1850 took geometry four years earlier than his eighteenth century counterpart. The fact is that he was probably of about the same age and previous educational experience.

The matter of geometry is a detail which, of itself, is relatively unimportant. It is important, however, that when we turn to an earlier generation for their ideas about secondary and higher education we keep clearly in mind the kinds of institutions and students they were talking about. I suggest, then, that we would think more accurately of the colonial and early national college, and perhaps evaluate more adequately contemporary arguments about secondary education, if we abandoned this talk about "pushing down" collegiate studies. Actually, there were no precise earlier equivalents to modern secondary and higher educational institutions. In a sense the "people's colleges"-high schools and academies-were rivals to the colleges. As they became more numerous the colleges abandoned the field and moved up, with respect to both curriculum and age of student body. Early nineteenth-century arguments about the terminal liberal education functions of the college might be more relevant to the current debate about secondary education than is discussion of the college preparatory function of the Latin Grammar School. The latter was, in some respects, an elementary school.

No doubt Brubacher and Rudy merely slipped with respect to inferences their discussion of geometry suggests. In general they seem to be well aware of the arguments advanced above. They will have made no small achievement if their book constrains all readers, as it did this one, to ask, "But is this really the meaning of America's long experiment with the higher learning?"

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Public Education in America—A New Interpretation of Purpose and Practice. Edited by George Z. F. Bereday and Luigi Volpicelli. New York, Harper and Brothers, 1958. x + 212 pp. \$4.00.

It must be stated at the outset that this book does not provide just one interpretation but an entire series of interpretations—seventeen, in fact—each rendered by a different person. The editors have done a good job of selection of both topics and authors. Not only is every writer in the volume known to most American educators, but each is recognized as an authority in his field. With such a combination as this, the book can hardly fail to impress a wide audience, particularly now, when so many citizens are concerned about the status of American public schools.

The opening chapter provides an excellent description of the "basic features of American education" and thus introduces several of the aspects which are dealt with at greater length in succeeding chapters. The essay on philosophical theories offers a good historical survey of American educational philosophies from the time of the founding of the Republic, but it gives scant attention to the present period. Either this chapter should have been extended or another should have been devoted to the current controversy over the aims and purposes of public education.

Fortunately, the editors and authors have not hesitated to include other controversial issues. The complex problem of social class

among students and its effect on the schools is faced frankly, although some consideration might well have been given to the class origins and backgrounds of teachers and school administrators. Similarly, the essay on race problems limits itself entirely to the Negro question, completely ignoring the American Indian and other racial groups which are particularly important factors in the Southwest portion of our nation. On the other hand, the chapter on religion in public education has perhaps attempted to include too much. Everyone recognizes the enormous difficulties inherent in analyzing this question, and certainly anyone undertaking such a task must be accorded wide latitude in defining the nature of his approach. Nevertheless, the conception of religion merely as "comprehensive life-orientation" or "the pattern of organization of life in relation to values regarded as ultimate" (p. 93) is too facile, for it allows the omission of all the supernatural and metaphysical factors which many persons see as the core of truly religious belief. Proceeding from such a conception, this essay has no difficulty in reaching two major conclusions: (1) "everyone has some religion," and (2) "every educational system presupposes some religious faith." This reviewer regards both these conclusions as questionable, especially when they in turn are used to make the teaching of religion in American public schools seem a much simpler problem than it has proved to be. It is not only the "plurality of religious faiths" that complicates the situation in America (other nations, such as England and Germany, share this condition), but the religious heterogeneity as well of most American communities. The author's definition of religion might better suffice as a definition of ethics, for then his conclusions quoted above would have a firm base, and his presupposition of "a common faith in respect to certain human relationships" in America would not have to be stretched to cover the realm of the divine.

It may appear strange that in a volume

bearing the title Public Education in America, an essay on private schools should be included. The decision to do this was a wise one, for the comparisons shed much light on the views which many private school patrons hold toward public education. Some of the attitudes expressed in this article are: (1) that greater academic freedom is enjoyed in private schools; (2) that the private school can be managed better because usually its enrollment is small; (3) that private schools illustrate the "sound American doctrine" that parents can send their children to school wherever they please. Since none of these views can be either proved or disproved to the satisfaction of everyone, it can only be said that this reviewer's observations have not led him to the same conclusions. Dismissals of private school teachers merely for disagreements with the headmaster are known to have occurred, and the fact that these instances do not usually get the publicity accorded purges in public schools makes the situation even more dangerous to civil liberties. The recent study by Dr. James Bryant Conant unequivocally states that small enrollment is one of the chief factors in creating inefficiency in public school operation. How can the same factor be an advantage in private schools? The third citation from the essay is an example of a prevalent American illusion in regard to many opportunities other than education: no mention is made of the limitations imposed by insufficient income, low social status, undesirable personal characteristics, unpopular social views, or the inequalities engendered by backgrounds in ethnic and religious minorities. It is an established fact that in most of the United States the public schools accept students without even asking questions about these matters. As was mentioned earlier, the comparisons stated or implied in this essay contribute much to a better understanding of public education in America.

A final word must be said about another aspect of the book also previously mentioned: the array of authors. The qualifica-

tions of each are above question, but the geographic and institutional representation is somewhat narrow. At the time of their writing, twelve of the seventeen were employed in New York State, nine of these at Teachers College, Columbia University, and another on the faculty of Columbia. One was in New Jersey, one in New England. The Midwest is represented by only two authors and the Far West by only one. The entire area south of the Mason-Dixon line exists without a spokesman, and indeed without much interpretation. If, as the Preface states, American education must be judged to a large extent by what it means to Americans, then the vision of America must become as broad as the reality. At the time the book was being written this reality did not include Alaska, but it most certainly encompassed Alabama, Arkansas, and Arizona.

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Administration for Adaptability, edited by Donald H. Ross. New York, Metropolitan School Study Council, Teachers College, Columbia University, 1958. 643 pages. \$12.00.

Descriptive and explanative is the subtitle of this significant undertaking of the Metropolitan School Study Council. Whereas "administration for adaptability" as a term might mean a variety of things to a variety of persons, the simple description "a source book drawing together the results of more than 150 individual studies related to the question of why and how schools improve" tells what this compendium of successful practices really is. And this is what it is-a source or reference book for the student and practitioner of school administration. It is a professional rather than a popular treatment of practices ranging all of the alphabetical way from accounting systems to zoning and planning.

Like the work of the Metropolitan School Study Council, which has as its major objective the improvement of school systems through their trained professional personnel, Administration for Adaptability addresses its inventory of practices which it has sponsored during its period of distinguished service in the neighborhood climate in which it has operated to those trained and competent in the educational field. While the novitiate will not find this easy reading he will not fail to recognize the important wealth of successful and purposeful activities which it reports and details.

In a characteristically trenchant foreword, Dr. Paul R. Mort, founder of the Metropolitan School Study Council, reiterates his oft-expressed dismay at educational lag and gives warm endorsement to the postulate of science "adapt or perish." Always constructive, Dr. Mort, who personally motivated many of the studies that this volume reports (and probably irritated many school superintendents into others of no less significance), suggests that here is a seedbed of ideas for other school systems. Although not unmindful of the uniqueness and values of the experimentation recorded in Administration for Adaptability, Mort suggests that this refinement and up-dating of the 1951 edition of the same title gives indication of what remains to be done in the adaptability area. Here, indeed, is one of the major contributions in the compilation, significant though it is in itself.

A helpful Editor's Preface follows the foreword, and here the late Donald H. Ross describes how the book was designed and put together. Generous in his acknowledgment of the contributions of the many authors, Dr. Ross modestly minimizes the important role he played in both the original and this subsequent edition, which will long reflect his own tremendous research and editing capabilities.

The text of the book Administration for Adaptability is presented in four parts:

"Adaptability in a Matrix of General Principles"; "What Happens in the Adaptation Process"; "Influences on the Adaptability of School Systems"; and "Who Are the Adaptors?" Three appendixes, bibliographies in standard and code form, and an index follow the text.

Regardless of the area considered, each of the twenty-one chapters is replete with specific and helpful suggestions. Typical is the chapter entitled "Public Understanding." Here, after suggesting that two factors-greater financial support and higher public understanding or expectancy of education-hold the greatest hope as the foci for direct efforts to make better schools, the importance of lay understanding and of educational vision are discussed. Next the relationship between public understanding and adaptability is statistically established, with concrete suggestions for measuring public opinion following. The theory of opinion sampling is recounted and details as to how to conduct a poll are presented. Sequentially "Finding out what you have" is then considered. The chapter goes on to treat such important topics as "The 'Unmet Needs Conference' to determine public opinion," "What people believe about education," "The problem of raising public understanding," "Handles for raising public understanding" (with a listing of media available), "Improving public understanding by lay participation" (with implications for those involved), and concludes with a proposed "Charter for Lay Participation in Educational Planning." The latter lists principles underlying lay participation, suggested procedures, cautions to be observed, the advantages of lay participation, and a final credo.

This chapter, selected more or less at random, is representative of the entire volume and, if unhampered by space limitation, the reviewer could point to other chapters equally as helpful. Treatment is much the same throughout the book—the statement of the problem, its division into component parts, a detailed analysis of the rele-

vant research in each, the findings and conclusions. Meticulous documentation and the careful listing and description of source material enhance each chapter.

It is difficult to be critical-constructively or destructively-of Administration for Adaptability. One reacts to it as to the dictionary and recognizes in each a tremendously valuable series of listingswords alphabetically in the one and in the other an inventory of the researches of the Metropolitan School Study Council which have been found significant, useful, authoritative, and effective. If one prefers an unabridged to an abridged dictionary, the latter will appear somewhat inadequate. So it is with the limitations of Administration for Adaptability, for in the areas under consideration only the researches of the Council are presented. Although helpful and representative of best practice, they are neither the alpha nor the omega of what has been done on a nation-wide scale. The careful, thorough student of educational administration and the practitioner will want, therefore, to implement his study by reading further and widely consulting other reliable, valuable recognized sources. This, however, does not minimize the contribution that the volume makes in itself, which is a distinguished one in the literature of the field.

It is to be hoped that Administration for Adaptability will be revised and up-dated with frequency, so swiftly does new research give assurance of improved practices. When next the volume is revised, more charts and diagrams would assist in the interpretation of the studies that are reported. Helpful, too, would be a further simplification of research identification and application. A third bibliography, identifying significant research outside of that sponsored by the Council but related to the areas under consideration in the Council's synthesis of its own excellent activity, would likewise prove a worth-while addition.

Herold C. Hunt Harvard University The Guidance Function in Education, by Percival W. Hutson. New York, Appleton-Century-Crofts, Inc., 1958. xvii + 680 pp. \$6.00.

Guidance is very much in the public eye at present. James B. Conant lists extended guidance services as the first of his twentyone recommendations for improving the American high school; the Educational Policies Commission has given guidance a prominent place in its last two statements; Part II of the 1959 Yearbook of the National Society for the Study of Education is devoted to personnel services in education; and guidance is one of the aspects of education for which the National Defense Education Act of 1958 provides funds. At the same time, when linked with education for "life adjustment," its very existence may be questioned on the grounds that it promotes anti-intellectualism.

Disagreements about the place of guidance in education often have their roots in differences in meanings assigned to the term. In practice, too, guidance is many things. Thus, a book bearing the title *The Guidance Function in Education* seems especially timely.

Professor Hutson's book is not, however, primarily an analysis of issues in education and society and a logical derivation of the place of guidance in education. It is intended as a text for a basic course in guidance for "all school workers... at all school levels." Hutson does devote almost one-fourth of the book to defining guidance and detailing the characteristics of our society and our educational system which support the need for it. The balance of the book is a discussion of methods in guidance, similar in rough outline to a number of basic texts in guidance.

The author sees the purpose of education as the optimum development of the individual; guidance consists of services which facilitate this development. Guidance services are both "distributive" and "adjustive," that is, they help youth to make the most appropriate educational and voca-

tional selections and they remove barriers to learning. Guidance is neither the whole of personnel work, the whole of individualized education, nor the whole of education. But the entire school staff, not just the specialist, has a role in carrying out the guidance function. One task of the specialist in guidance, then, is to help others see their roles in this area and carry them out effectively. The term "counselor" seems inadequate to describe the guidance specialist because of the multiplicity of his activities; "guidance consultant" seems to Hutson to describe more adequately the guidance specialist's proper role.

Hutson's views are not particularly new, though some of them are mildly controversial. Many writers in guidance, for example, would accord counseling first place among guidance methods; Hutson considers it simply an important method. Hutson sees substantial value in the homeroom organization for guidance purposes; many practitioners in guidance consider homeroom guidance programs unworkable.

Hutson's concept of guidance does lead to services which ought to be helpful to young people in school. The examination of the social and educational scene, however, is part of a somewhat unusual reasoning process. The author takes a stand on what guidance should be, then asks whether the society and the school system are appropriate environments for guidance. It is as if a concept of guidance were derived independently of the society, with any inconsistencies between society and the service being resolved by modification of the society, not the service.

The chapters on the social and educational scene suffer from the author's failure to consult recent references. Hutson is aware of this, and asserts in the Preface that, in consulting references, he is "looking for value, rather than recency." The argument seems convincing until one notes that in these two chapters only one-sixth and one-eighth respectively of the end-of-chapter references are as recent as 1950. Over 40 per cent of the references for the

two chapters are from the 1930's. The balance does not seem right. Even if one assumes that few have written perceptively about education or society in the '50's, surely recent changes in society or in education can be more adequately perceived in the present than they could have been predicted in the past. Interestingly, in a chapter on counseling, an aspect of Hutson's field of concentration, two-thirds of the references were written in the present decade.

If Hutson's book fails to be a fresh and penetrating analysis of the place of guidance in education, it nonetheless has many virtues as a basic text in guidance. Hutson reports relevant research in greater quantity and detail than most such texts; his bibliographies are extensive and, in most chapters, seem well selected; his coverage of guidance topics is comprehensive; and he writes lucidly.

When used in class settings where library facilities are limited, or in institutions where students are able to read widely, Hutson's book should serve its purpose well.

CHARLES N. MORRIS Teachers College, Columbia

The Christian Teacher, by Perry D. Le Fevre. New York and Nashville, Abingdon Press, 1958. 176 pp.

For the past decade or two there has been a notable revival of interest on the part of religious people in the problems and issues of higher education. Many American colleges and universities were founded by religious people and groups who fervently believed that education was a significant expression of their faith. Later these colleges became largely secular in their outlook and their conception of education. And they were supplemented by many state-supported colleges and universities which were secular in viewpoint from the outset.

This general secularization of higher education has evoked a religious interest in higher education which has extended to all

three major religious groups—Protestants, Catholics, and Jews. It has produced a great variety of books, reports, programs, and organizations, and indeed a few new

institutions of higher education.

The Christian Teacher is part of a rapidly growing body of literature on the subject. Professor Le Fevre writes as a Protestant Christian, and his book is addressed mainly to others of the same religious persuasion. The issues with which he deals are formulated in the terms of discussions which have characterized recent and current Protestant theology. He addresses himself to teachers who are Protestant Christians and wish to explore seriously the bearing of their religious faith upon their work as teachers.

This is to say by implication that the book moves within a rather constricted orbit. Catholic and Jewish teachers may find here illuminating ideas, but secular-minded teachers will, I fear, find many pages un-

intelligible or irrelevant.

Secular-minded educators will find, however, that Le Fevre and the group for which he speaks do not for a moment seek to limit or compromise either the freedom or the intellectual integrity of higher education. Rather, the problem between the author and the secular teacher lies in the radically different language in which the issues of man's spiritual and intellectual life are described, and the absence of any lexicon for translating from one to the

Within the circle of Christian teachers Le Fevre has much that is valuable to say. Beginning with the teacher's vocation he moves to the teacher's relation to his own discipline, and to the major curricular areas of higher education, indicating in each case

points of relevance for Christian concern. There are also chapters on the teacher's personal relation to students, to his colleagues, and to the academic community generally. The final chapter deals significantly with "God and the Teaching-Learning Process."

The book is disappointing in its omissions. As the reviewer has indicated, it does not deal with the relation of the Protestant Christian teacher with his colleagues of other religious persuasion, or of no conscious religious persuasion at all. Neither does it deal with the pervasive and fundamental issue of the Christian in his relation to the secular community. Such omissions have the force of narrowing both the argument and the usefulness of the book.

Also there is in these pages-often no more than a vague suggestion-a kind of pietism that is present too in many Protestant educational groups. The suggestion is that somehow the Protestant Christian teacher is in possession of a viewpoint which gives him a sort of superioritymoral, religious, intellectual or personalto his colleagues. Writing as a Protestant Christian, I should want to disavow this attitude vigorously and completely. Surely the virtues of great teaching that Le Fevre describes and celebrates are not the monopoly of any one religious group. Indeed my observation is that they seem to vary independently of any creed or confession.

There is an old saying that it is easier to start a hare than to catch him. This book raises many issues of fundamental importance to both religion and higher education. One hopes that the discussion of them

will continue.

JOHN A. HUTCHISON Columbia University

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